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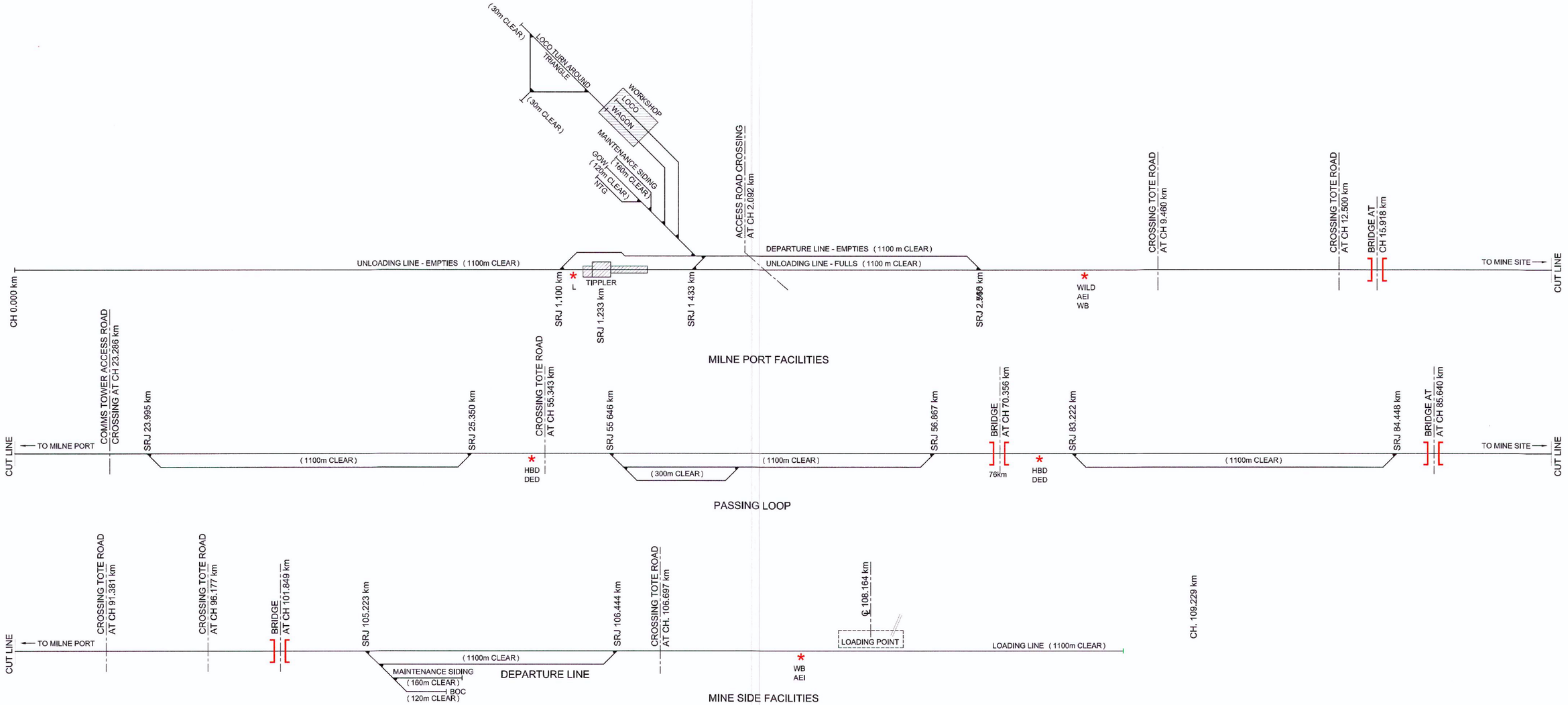

DIAGRAMMATIC LAYOUT
NTS

LEGEND:

] [= BRIDGE

* = WAYSIDE CONDITION MONITORING INSTALLATION

L = LIDAR SCANNING
HBD = HOT BOX DETECTION
DED = DRAGGING EQUIPOMENT DETECTION
WB = WAY BRIDGE
AEI = AUTOMATIC EQUIPMENT IDENTIFICATION
WILD = WHEEL IMPACT DETECTION AND ACOUSTIC MONITORING SYSTEM

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018/11/12
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

REFERENCE DRAWINGS	
H353004-33000-224-272-0003	LINE PLAN AND LONGGITUDINAL SECTION CH. 74.250km TO 109.680km
H353004-30000-224-272-0002	LINE PLAN AND LONGGITUDINAL SECTION CH. 37.250km TO 74km
H353004-30000-224-272-0001	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.070km TO 37km
DRAWING No.	DRAWING TITLE

REG. PROFESSIONAL

D. STANGER LICENSEE 2018-11-12 NT/NU

NOT FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
1	APPROVED FOR DETAIL DESIGN	AJVN		2018/10/01
0	DIAGRAMMATICAL LAYOUT WAYSIDE: APPROVED FOR BID	AJVN		2018/07/05

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	W RIDGARD	NR	2016/12/07
DESIGNER	A VAN NIEKERK	NR	
CHECKER	G JOHNSTONE		2018/11/08
DESIGN COORD.	G JOHNSTONE		2018/11/08
RESP. ENG.	D STANGER		2018/11/12
LEAD DISC. ENG.	F VAN BILJON		2018/11/08
AREA LEAD	F VAN BILJON		2018/11/08
ENG. MANAGER	D STANGER		2018/11/12
AREA MANAGER	F PITTMAN		2018/11/09

DRAWING APPROVAL STATUS: Approved for Detail Design

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

SITE PLAN
DIAGRAMMATIC LAYOUT WAYSIDE
MILNE PORT TO MINE SITE

SCALE NTS OR AS NOTED

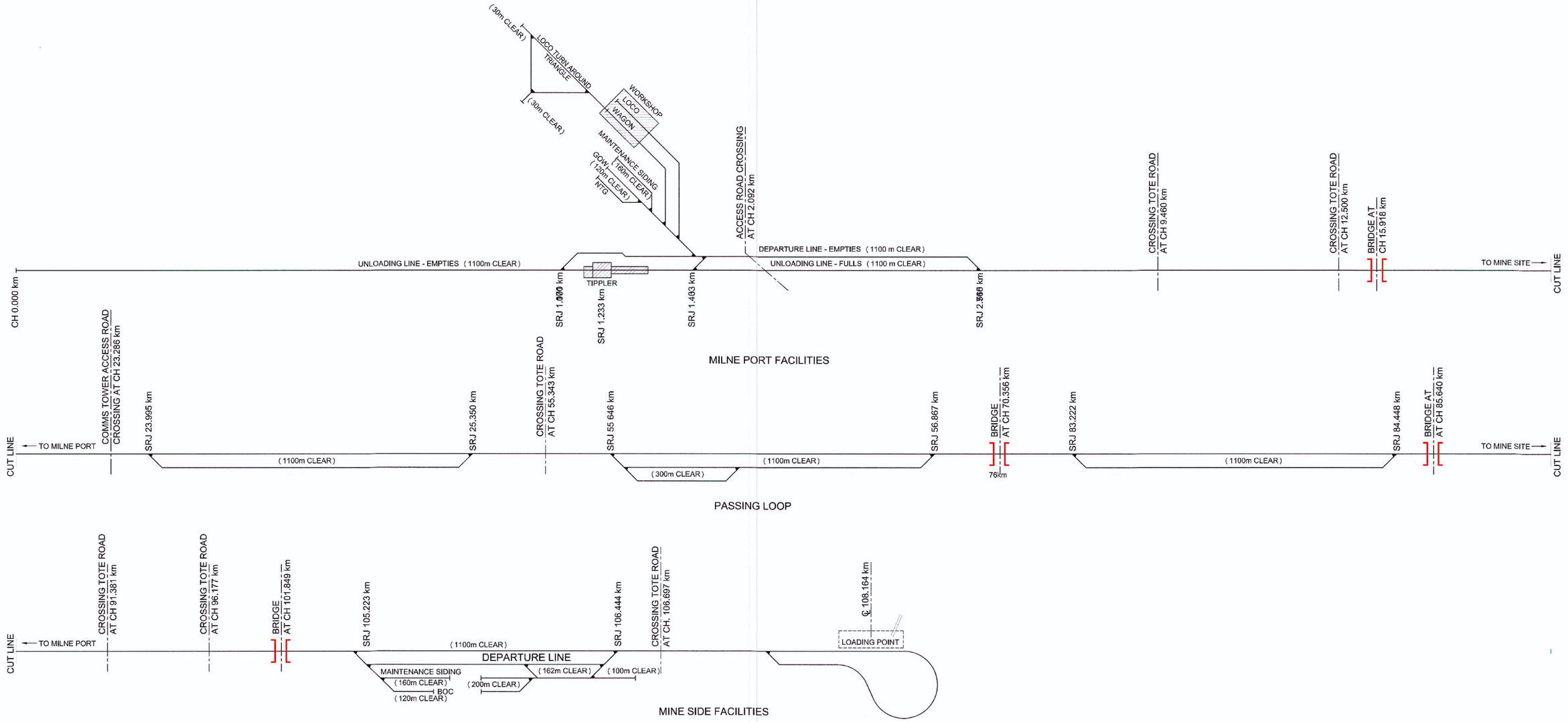
DWG. No. H353004-30000-224-262-0002-0001

REV 1

SHEET SIZE: A1

$USERNAMES
$DATES
$TIMES

DWG. No. H353004-30000-224-262-0003-0001



LEGEND:

] [= BRIDGE

DIAGRAMMATIC LAYOUT
NTS

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018 / 11 / 12
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

DRAWING No.	DRAWING TITLE
H353004-33000-224-272-0003	LINE PLAN AND LONGGITUDINAL SECTION CH. 74.250km TO 109.680km
H353004-30000-224-272-0002	LINE PLAN AND LONGGITUDINAL SECTION CH. 37.250km TO 74km
H353004-30000-224-272-0001	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.070km TO 37km

REFERENCE DRAWINGS

REGISTERED PROFESSIONAL ENGINEER D. STANGER LICENSEE 2018-11-12 NT/NU

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHK'D	DATE
1	APPROVED FOR USE	AJVN		2018/10/01
0	DIAGRAMMATICAL LAYOUT PHASE 1: APPROVED FOR BID	AJVN		2018/07/05

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	W RIDGARD	NR	2016/12/07
DESIGNER	A VAN NIEKERK	NR	
CHECKER	G JOHNSTONE		2018/11/08
DESIGN COORD.	G JOHNSTONE		2018/11/08
RESP. ENG.	D STANGER		2018/11/12
LEAD DISC. ENG.	F VAN BILJON		2018/11/08
AREA LEAD	F VAN BILJON		2018/11/08
ENG. MANAGER	D STANGER		2018/11/12
AREA MANAGER	F PITTMAN		2018/11/09

DRAWING APPROVAL STATUS: Approved for Use

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

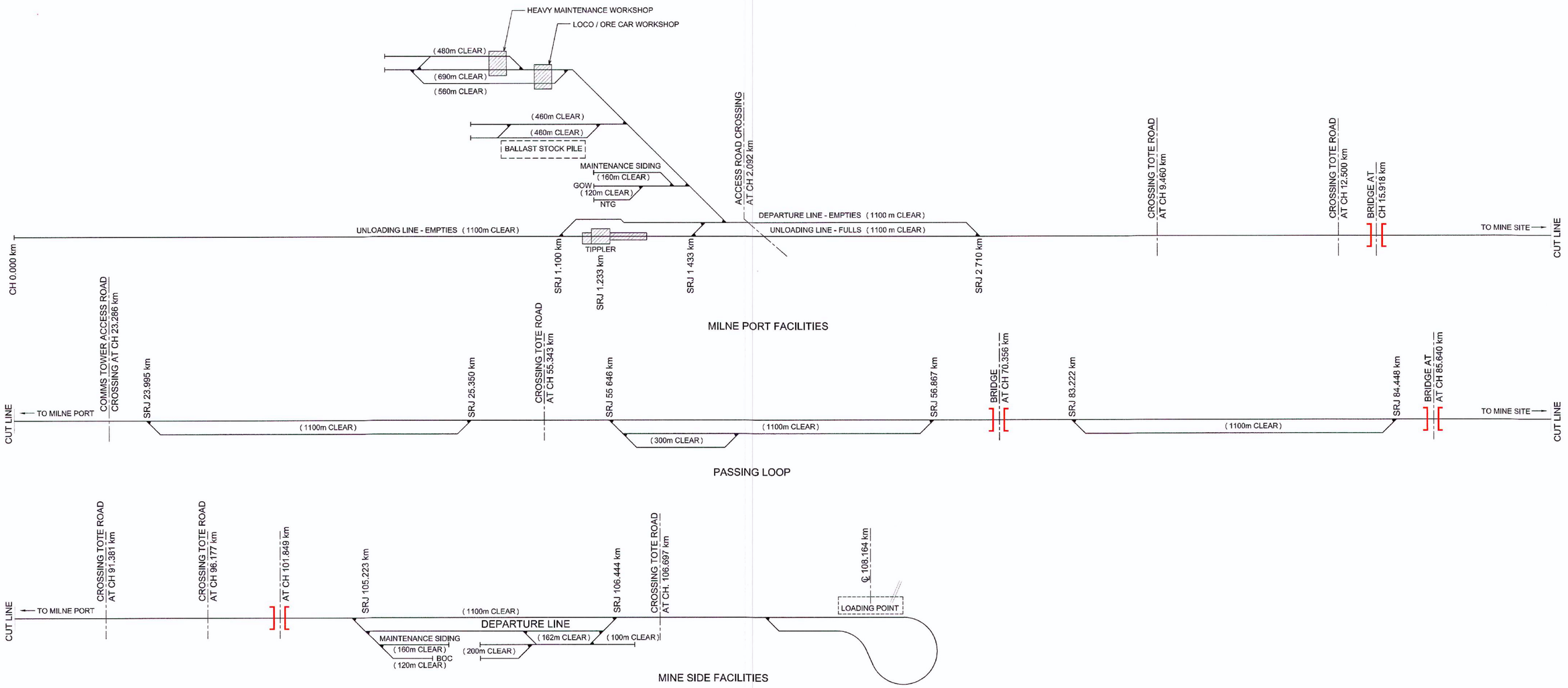
SITE PLAN
DIAGRAMMATIC LAYOUT PHASE 1
MILNE PORT TO MINE SITE

SCALE NTS OR AS NOTED | DWG. No. H353004-30000-224-262-0003-0001 | REV 1

SHEET SIZE: A1

$USERNAMES $STMES

DWG. No. H353004-30000-224-262-0004-0001



LEGEND:

] [= BRIDGE

DIAGRAMMATIC LAYOUT

NTS

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018/11/12
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

DRAWING No.	DRAWING TITLE
H353004-33000-224-272-0003	LINE PLAN AND LONGGITUDINAL SECTION CH. 74.250km TO 109.680km
H353004-30000-224-272-0002	LINE PLAN AND LONGGITUDINAL SECTION CH. 37.250km TO 74km
H353004-30000-224-272-0001	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.070km TO 37km

REFERENCE DRAWINGS

REG. PROFESSIONAL

REGISTERED PROFESSIONAL ENGINEER — A.L. STANGER — LICENSE — 2018-11-1 — NT/NU

NOT FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
1	APPROVED FOR USE	AJVN		2018/10/01
0	DIAGRAMMATICAL LAYOUT PHASE 2: APPROVED FOR ENQUIRY	AJVN		2018/07/05

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	W RIDGARD	NR	2016/12/07
DESIGNER	A VAN NIEKERK	NR	
CHECKER	G JOHNSTONE		2018/11/08
DESIGN COORD.	G JOHNSTONE		2018/11/08
RESP. ENG.	D STANGER		2018/11/12
LEAD DISC. ENG.	F VAN BILJON		2018/11/08
AREA LEAD	F VAN BILJON		2018/11/08
ENG. MANAGER	D STANGER		2018/11/12
AREA MANAGER	F PITTMAN		2018/11/09

DRAWING APPROVAL STATUS: Approved for Use

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

SITE PLAN
DIAGRAMMATIC LAYOUT PHASE 2
MILNE PORT TO MINE SITE

SCALE NTS OR AS NOTED

DWG. No. H353004-30000-224-262-0004-0001

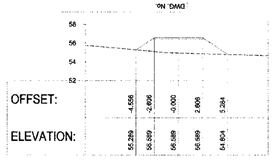
REV 1

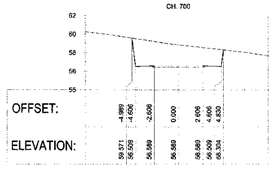
$USERNAME$

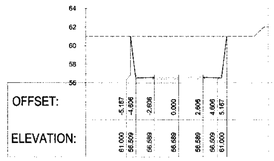
SHEET SIZE: A1

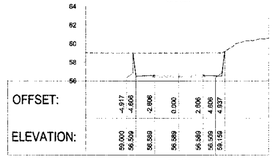
FORMATION CROSS SECTIONS

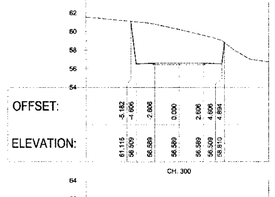
DWG. No. H353004-30000-224-273-0001-0001

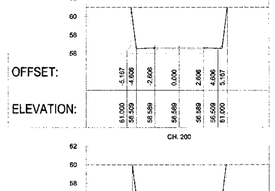


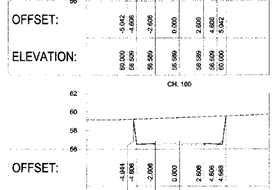


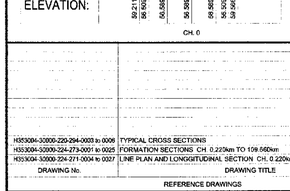


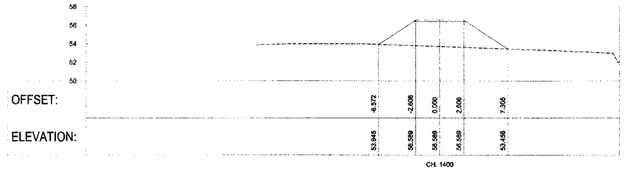


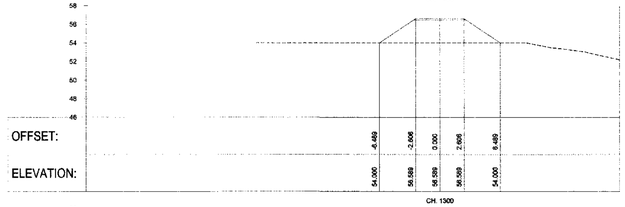


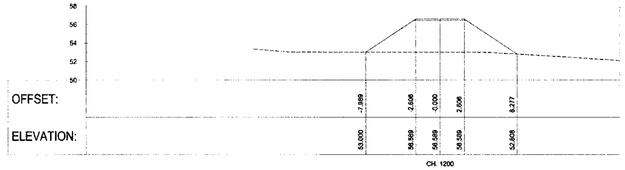


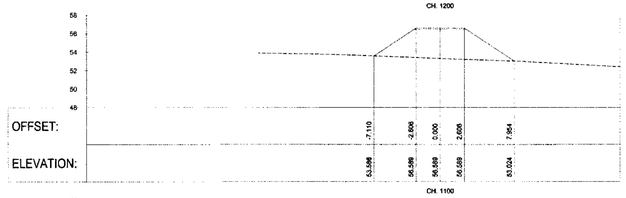


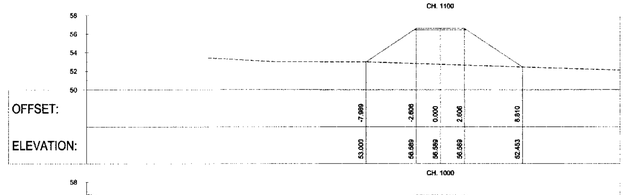


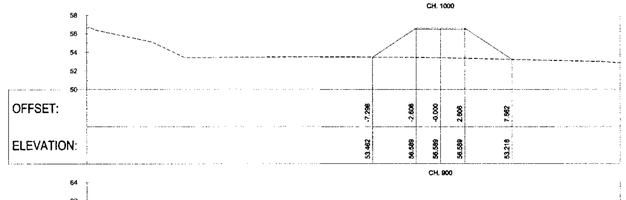


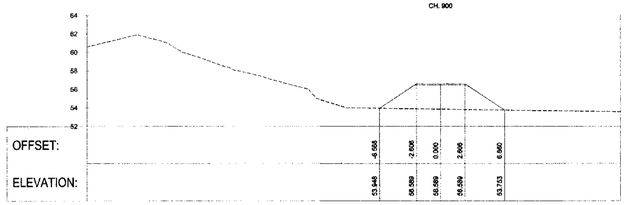


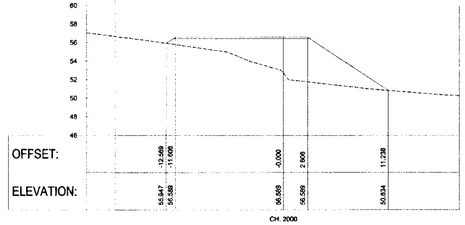


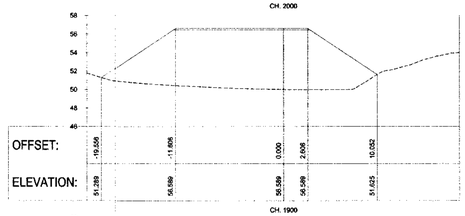


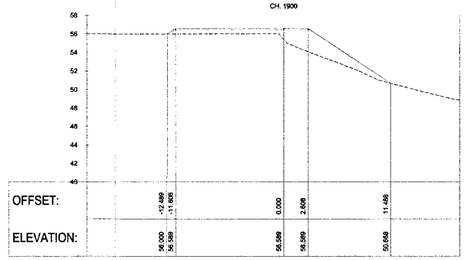


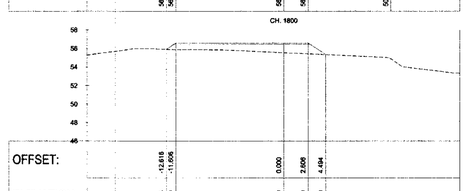


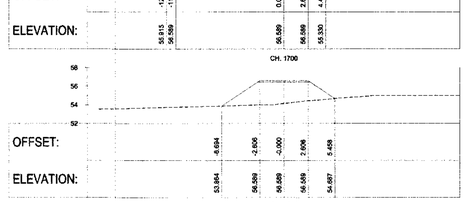


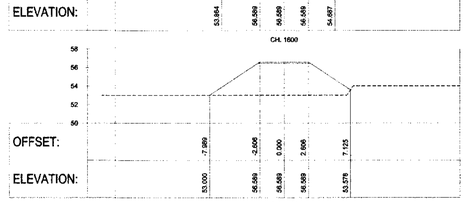


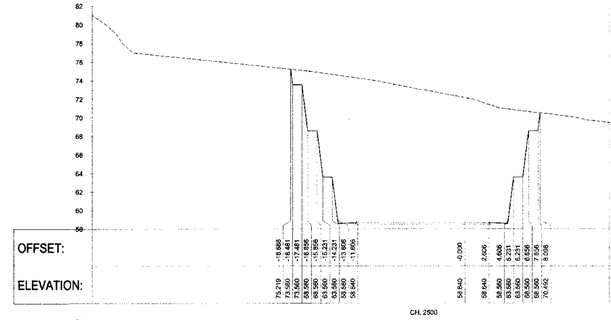


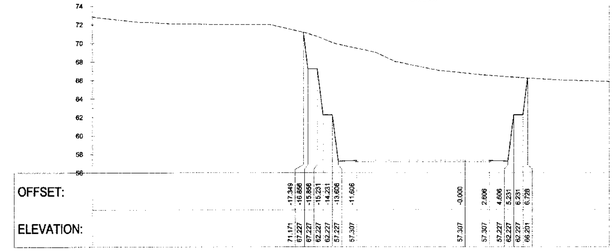


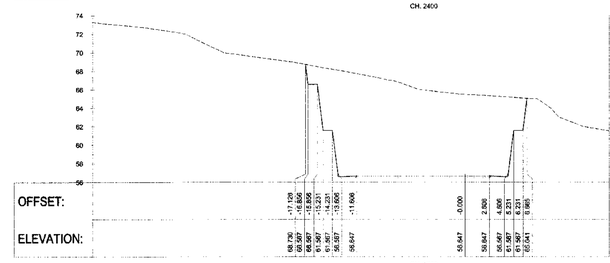


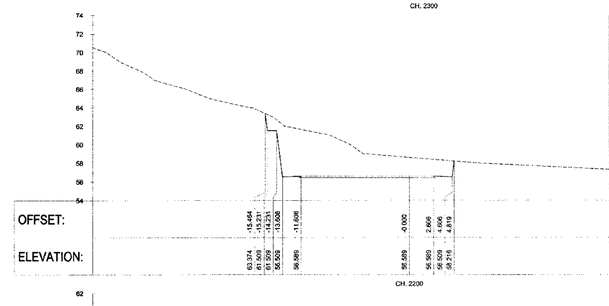


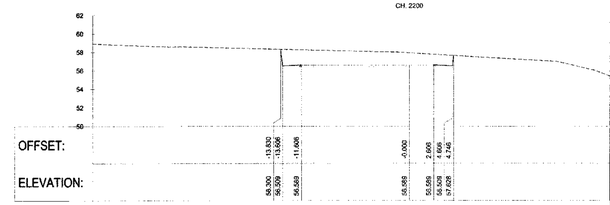












PERMIT TO PRACTICE HATCH LTD.
Signature
Date
PERMIT NUMBER P 312
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

DRAWING No.	TITLE
H353004-30000-220-294-0003 is 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.560km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.560km

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0001-0001.

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	NR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMANN		

ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

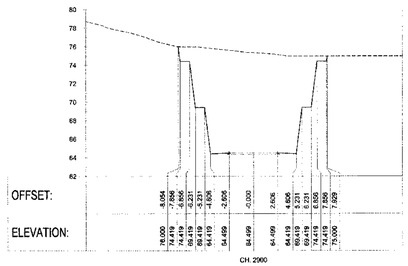
BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

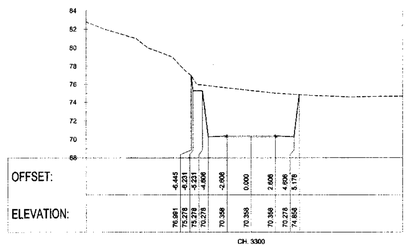
RAIL SITE
FORMATION CROSS SECTIONS
CH. 220m TO 2500m

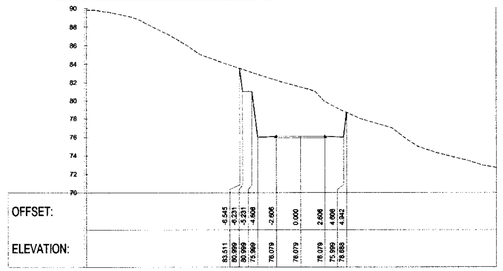
SCALE	DWG. No.	REV
1:200 (OR AS NOTED)	H353004-30000-224-273-0001-0001	A

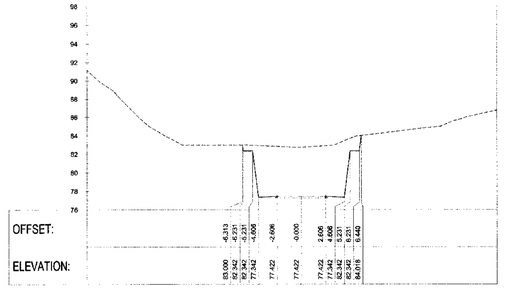
SHEET SIZE: A0

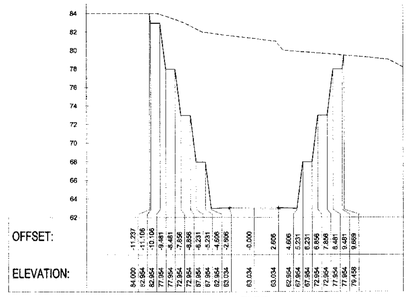
BUSINESS UNITS: METRES

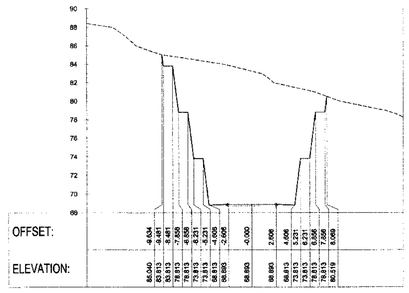


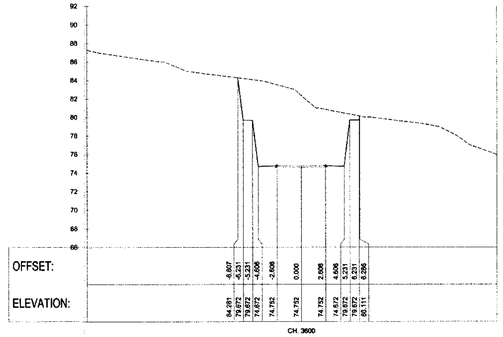


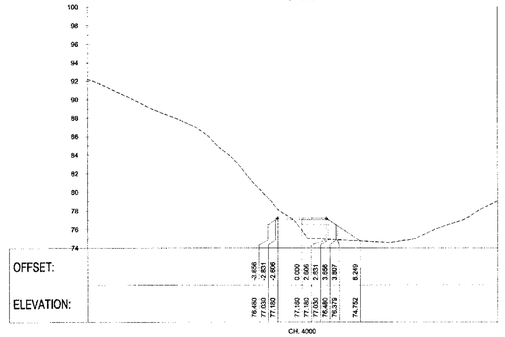


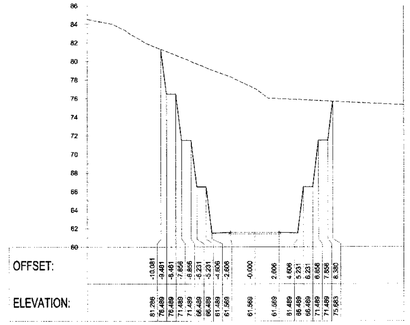


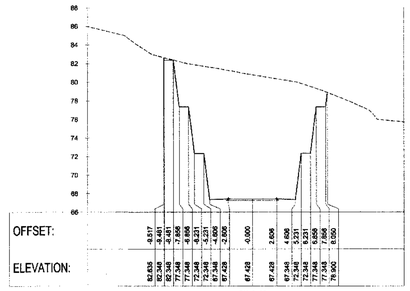


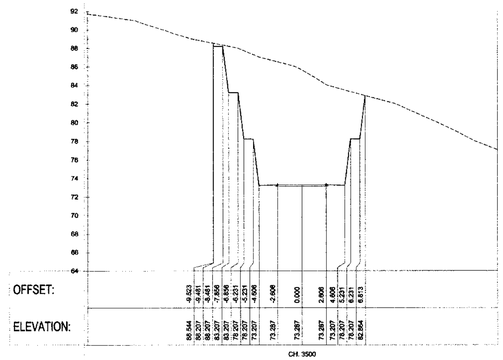


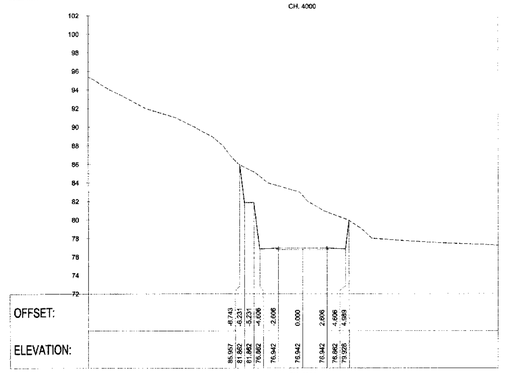


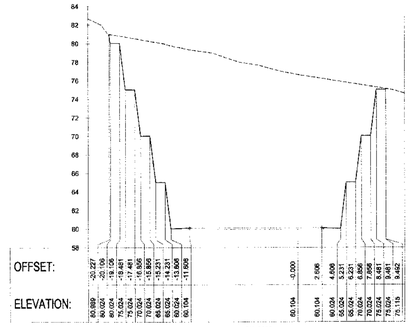


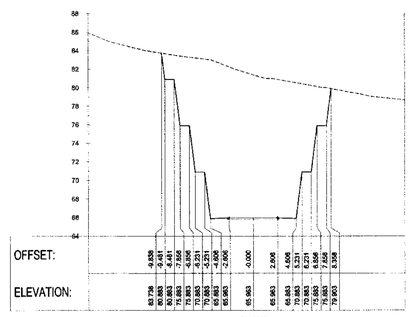


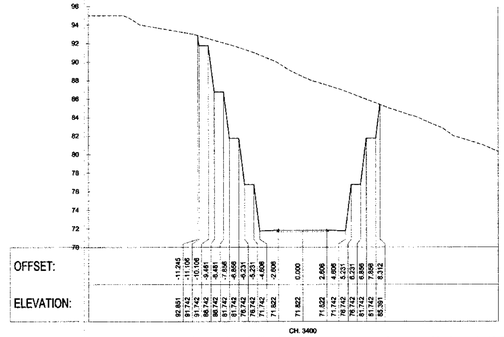


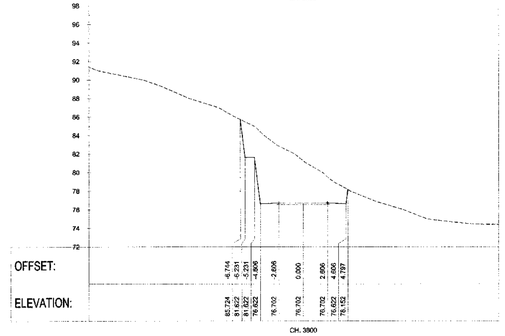












NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)

DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 106.660km

REFERENCE DRAWINGS

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0002-0001	WR	GM	2015/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	NR	2015/11/11
DESIGNER	A VAN NIEKERK	NR	2015/11/07
CHECKER	C JOHNSTONE		2015/11/13
DESIGN COORD.	F VAN BILJON		2015/11/13
RESP. ENG.	R HUM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

ROLE | NAME | SIGNATURE | DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 2600m To 4100m

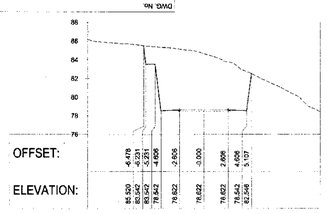
SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0002-0001	A

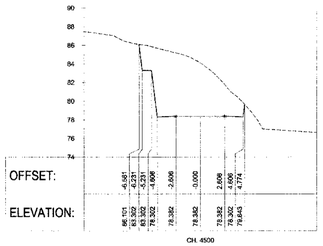
CPLAS HGTRS

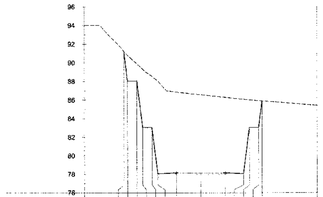
SHEET SIZE: A1

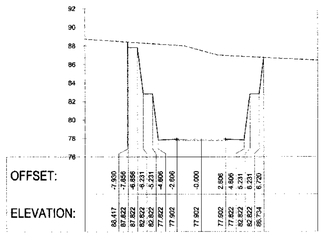
SUBDRAWINGS
SHEETS
STAGES

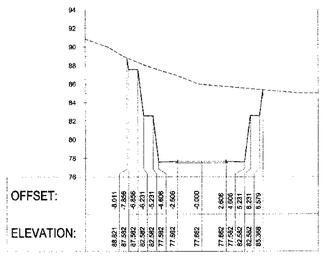
DWG. No. H353004-30000-224-273-0003-0001

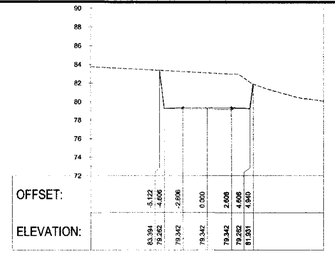


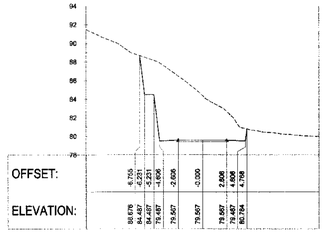


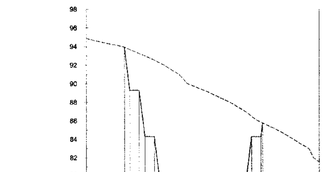


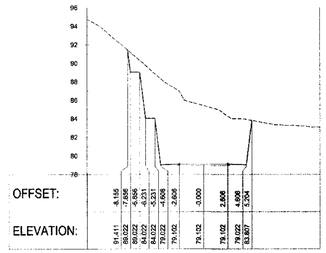


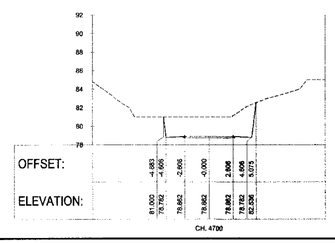


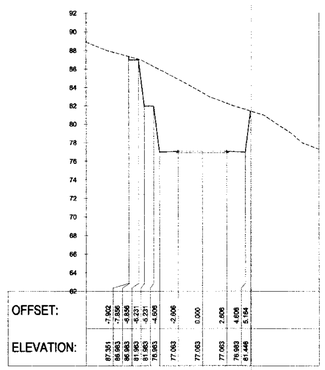


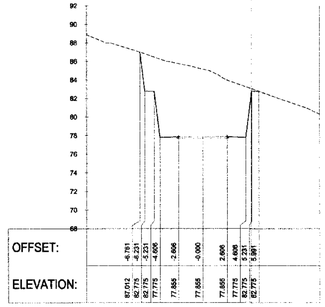


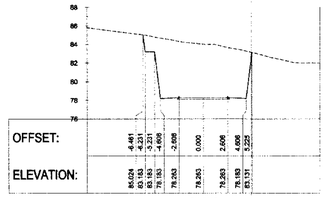


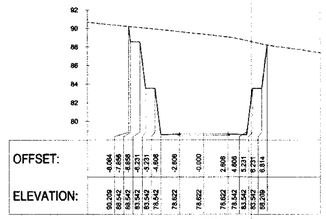


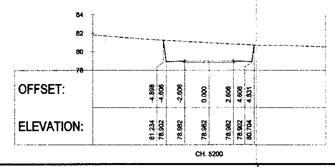


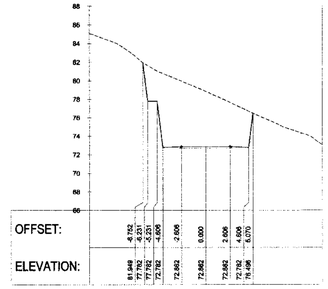


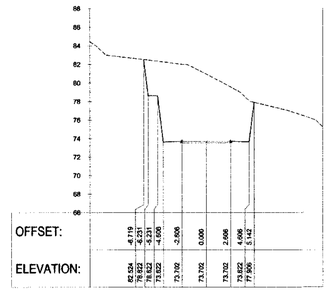


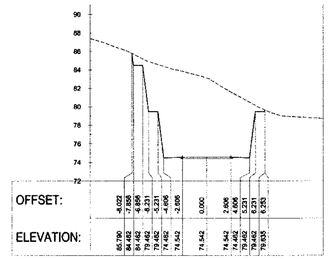


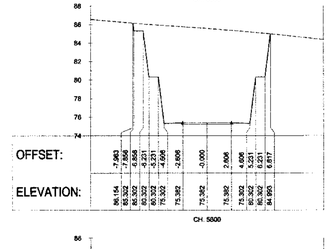


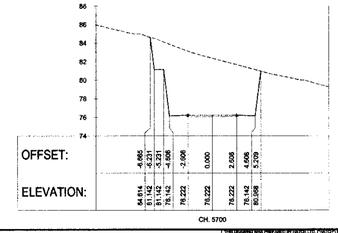


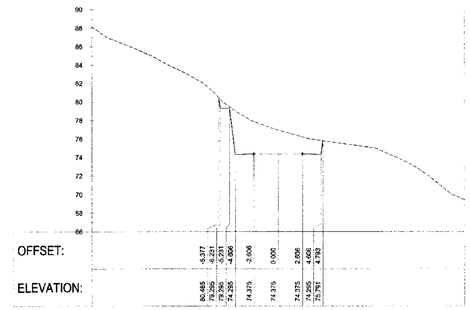


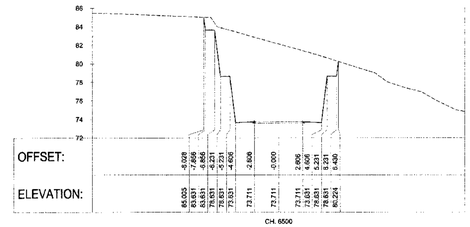


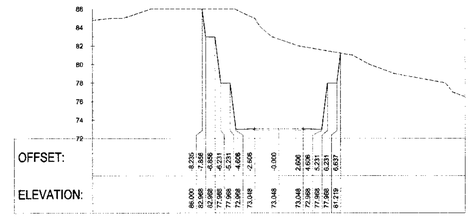


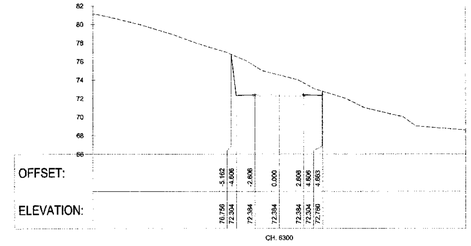


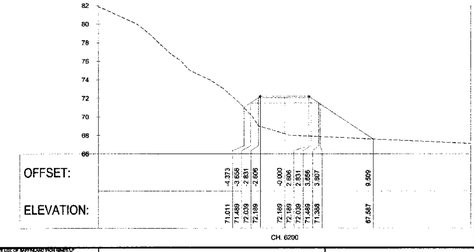












PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 312
The Association of Professional Engineers, Geologists and Geophysicists of (NWT/NU)

H353004-30000-220-294-0003 to 0005	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-280-0001-0001.

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHKD	DATE
A	INTERNAL / CLIENT REVIEW	WR	GM	2015/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	NR	2015/11/11
DESIGNER	A VAN NIEKERK	NR	2015/11/07
CHECKER	G JOHNSTONE		2015/11/11
DESIGN COORD.	G JOHNSTONE		2015/11/11
RESP. ENG.	D STANGER		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:	INTERNAL / CLIENT REVIEW		

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 4200m TO 6600 m

SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0003-0001	A

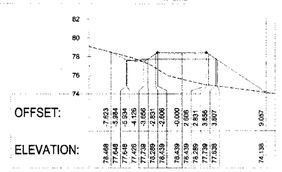
SHEET SIZE: A0

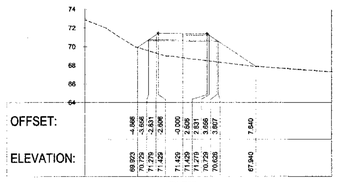
S:\DRAWINGS\STAGES\STAGE

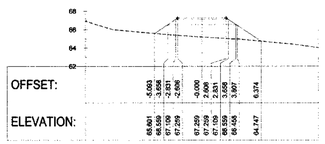
1 2 3 4 5 6 7 8

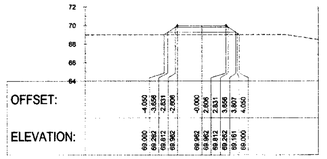
DWG. No.

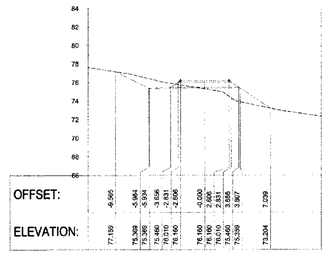
H353004-30000-224-273-0004-0001

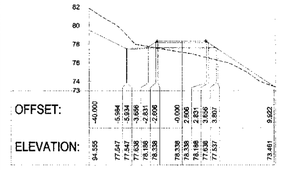


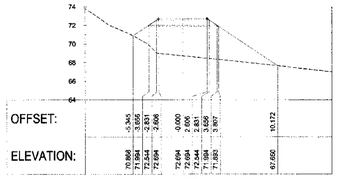


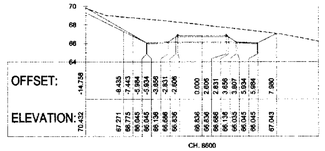


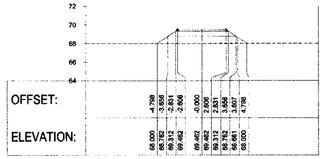


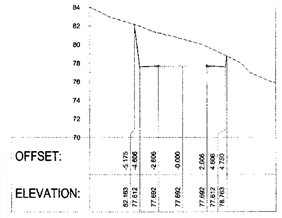


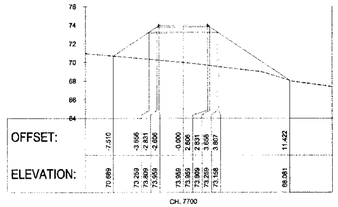


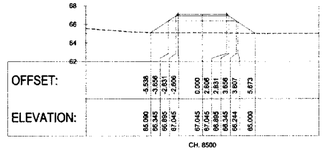


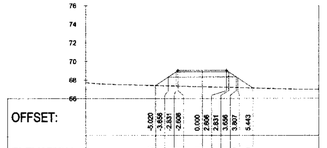


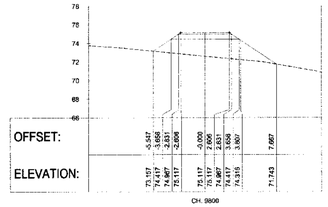


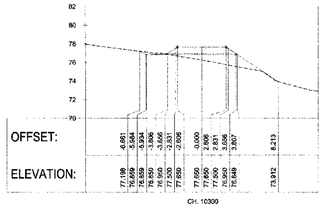


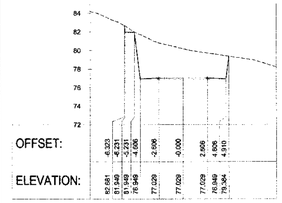


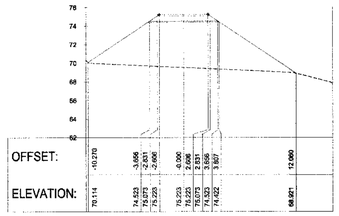


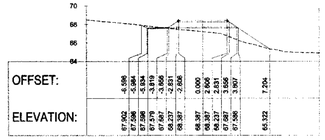


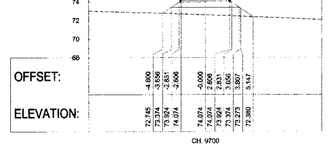


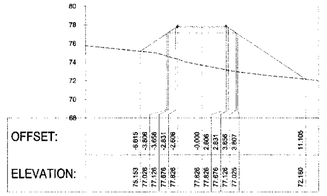


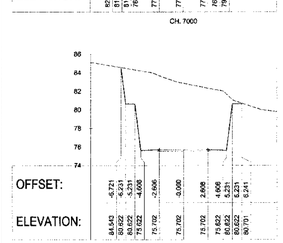


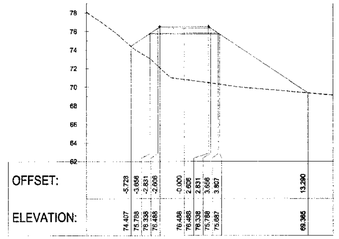


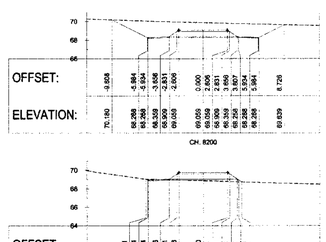


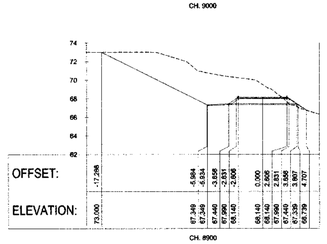


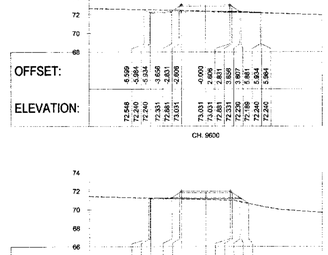


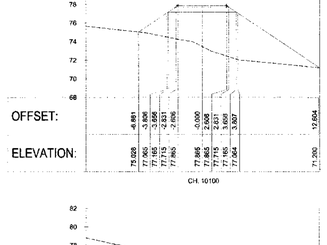


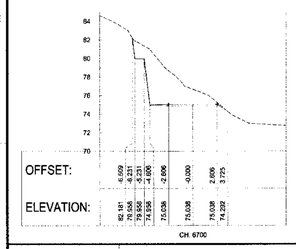


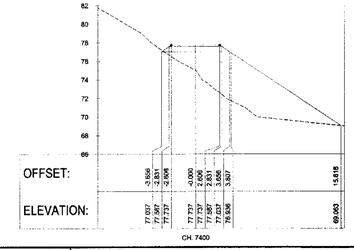


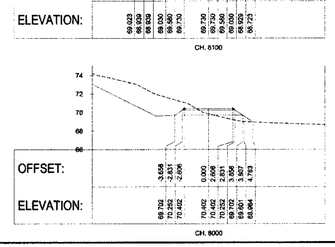


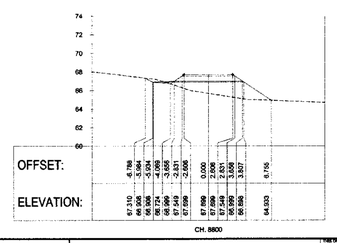


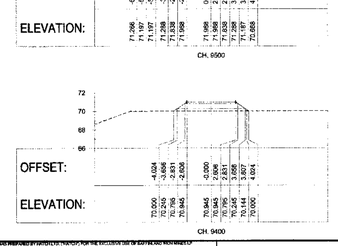


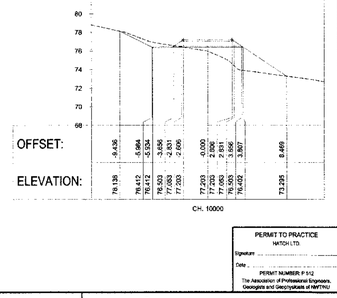












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H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-273-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0004-0001.

REG. PROFESSIONAL

No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

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AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

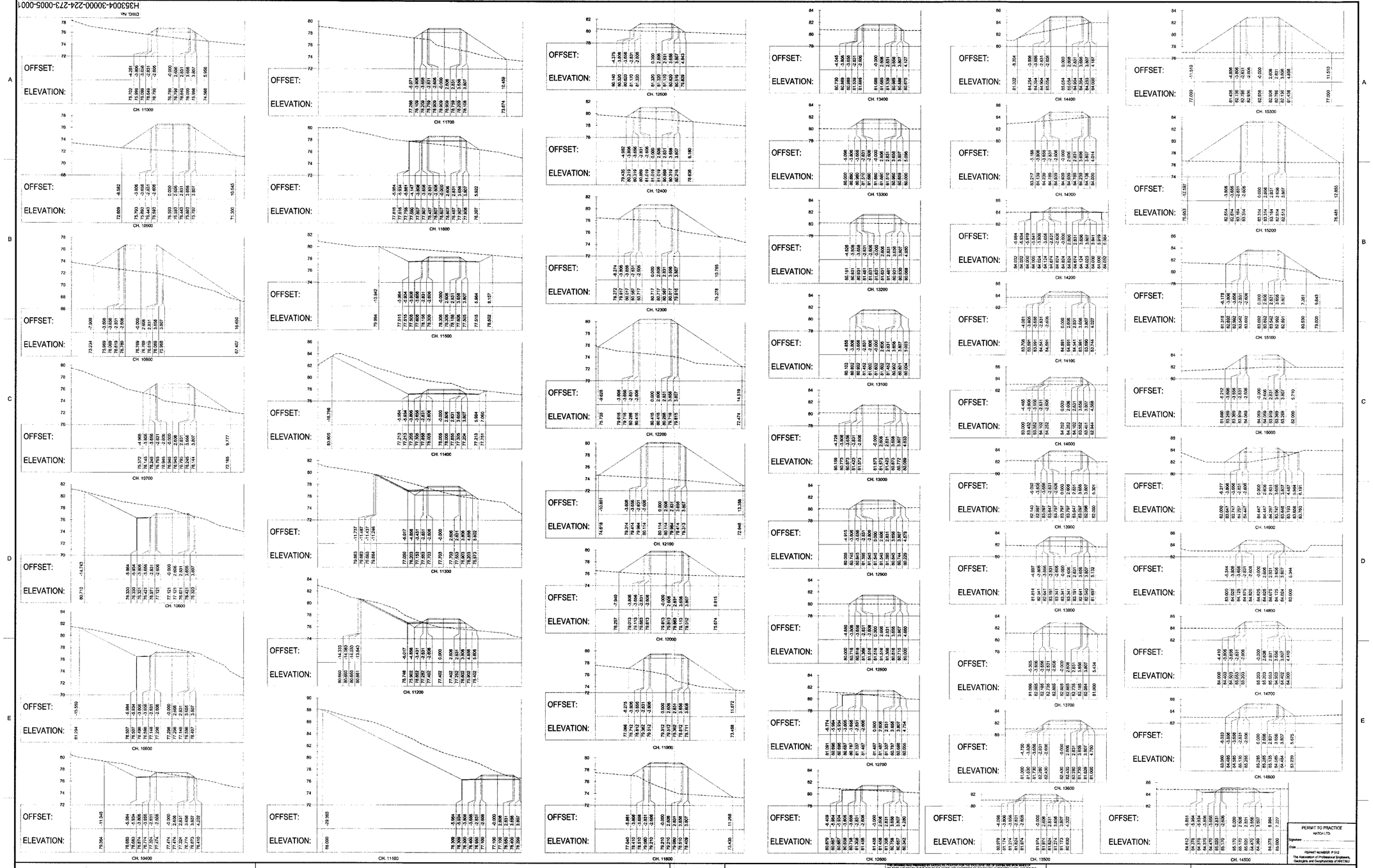
RAIL SITE
FORMATION CROSS SECTIONS
CH. 6700m TO 10300 m

SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0004-0001	A
CH AS NOTED		

SHEET SIZE: A0

SUSSEX/WAVES STAGES 1 TO 5 SPLICES

1 2 3 4 5 6 7 8



H353004-30000-223-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

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DRAFTSPERSON	W RIGGARD	NR	2018/11/11
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DESIGN COORD.	F VAN BILJON		
RESP. ENG.	F VAN BILJON		
LEAD DISC. ENG.	A HALM		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

ROLE	NAME	SIGNATURE	DATE

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 10400m TO 15300 m

SCALE	DWG. No	REV
1:200 OR AS NOTED	H353004-30000-224-273-0005-0001	A

SHEET SIZE: A0

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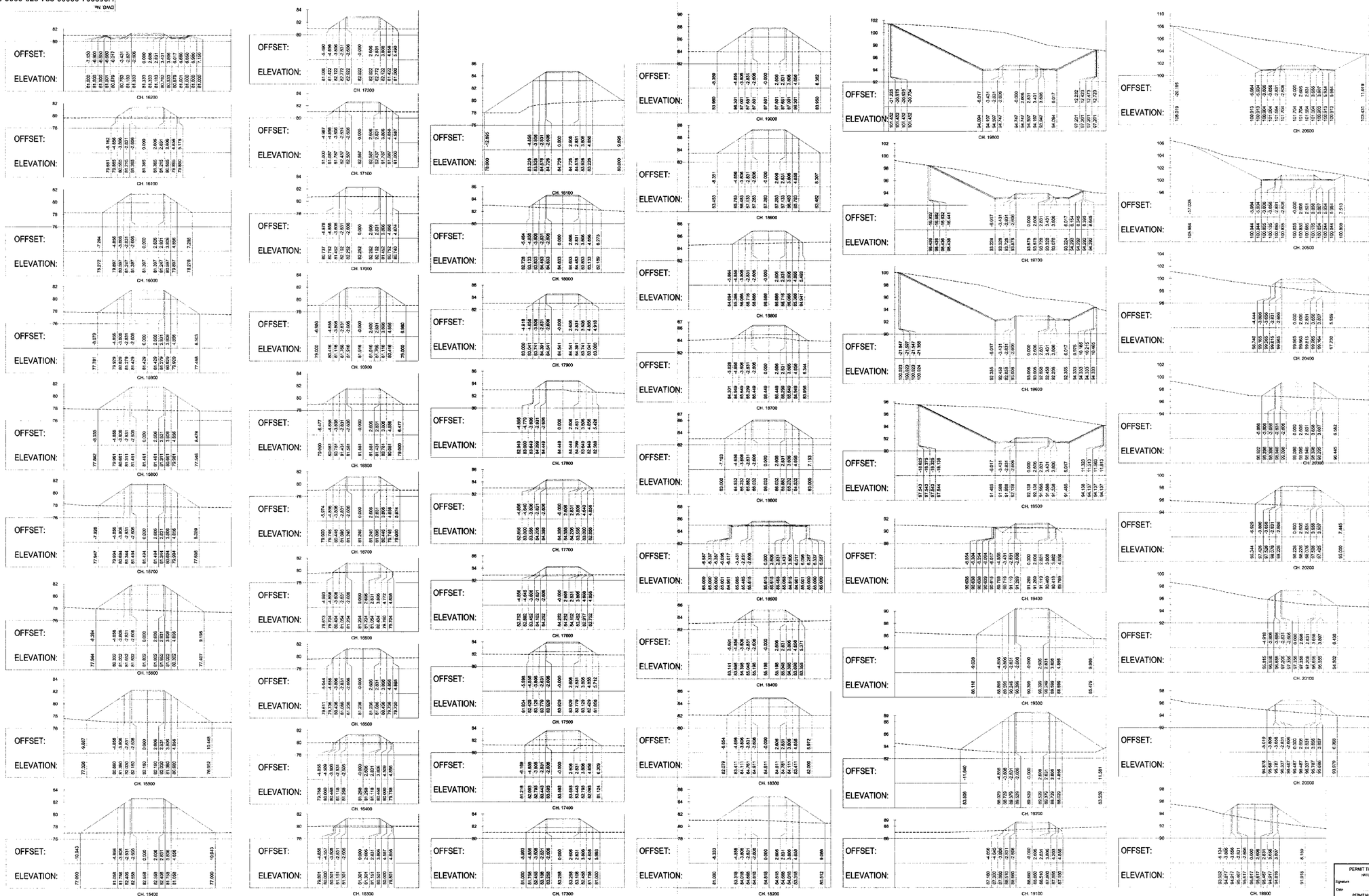
BASEMARKS
ISSUED FOR USE
STAGES

DWG No. H353004-30000-224-273-0006-0001



H353004-30000-220-294-0002 to 0009	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

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DESIGN COORD.	F VAN BILJON		
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LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 15400m TO 20600 m

SCALE	DWG No.	REV
1:200 ON A3 NOTSZ	H353004-30000-224-273-0006-0001	A

SHEET SIZE: A3

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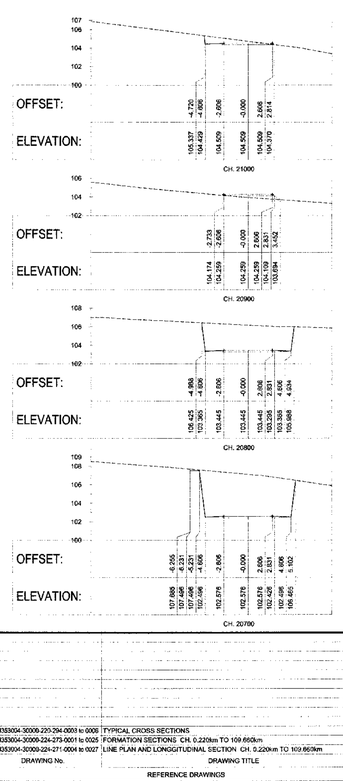
SUBSTRUCTURES
STWKS
SFILES

DWG. No. H353004-30000-224-273-0007-0001



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DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0008	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-221-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km

REFERENCE DRAWINGS

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A	INTERNAL / CLIENT REVIEW	WR	GM	2018/11/11

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RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		2018/11/
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ENG. MANAGER	D ATANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

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Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

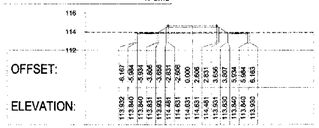
RAIL SITE
FORMATION CROSS SECTIONS
CH. 20700m TO 21000 m

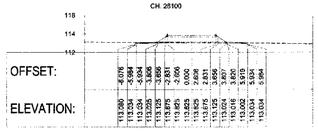
SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0007-0001	A

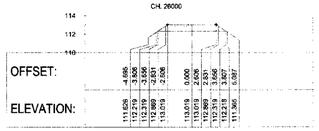
SHEET SIZE: A2

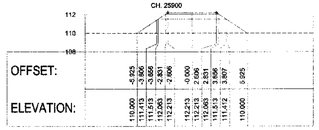
SUBDRAINAGE STRUCTURES

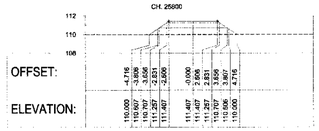
DWG No. H353004-30000-224-273-0008-0001

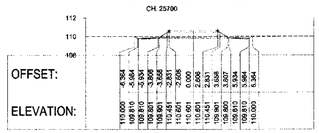


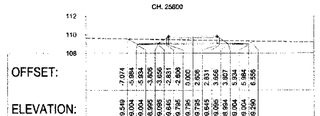


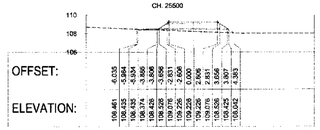


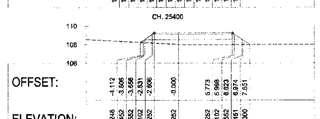


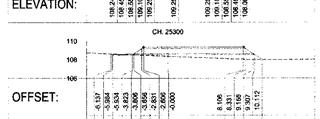


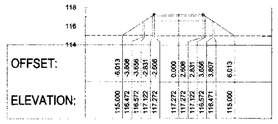


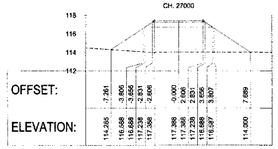


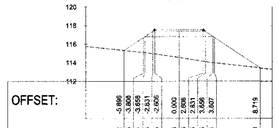


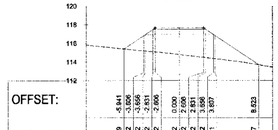


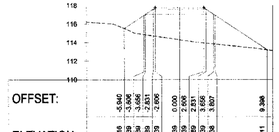


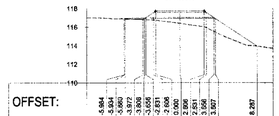


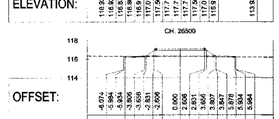


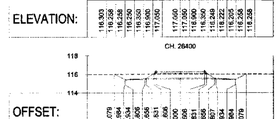


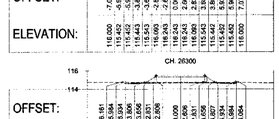


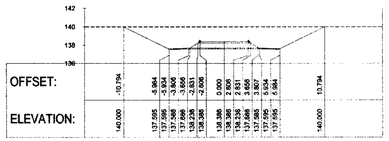


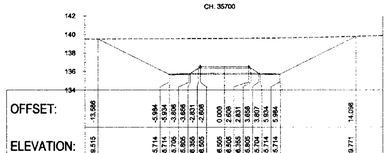


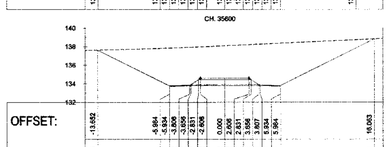


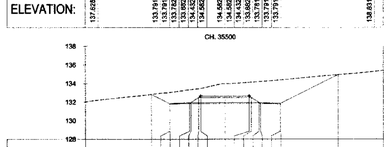


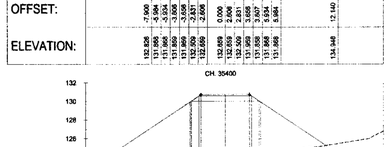


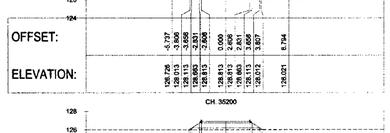


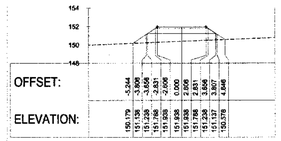


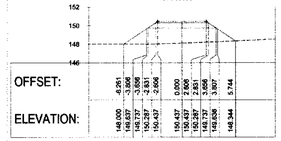


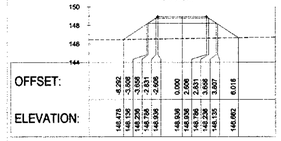


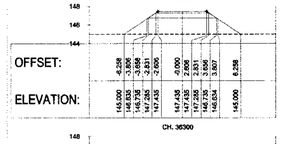


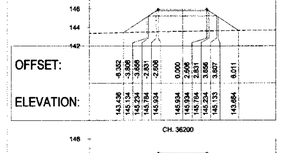


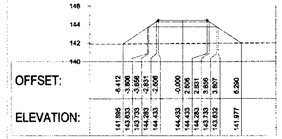


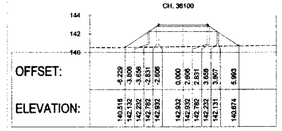


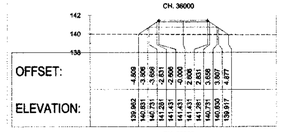


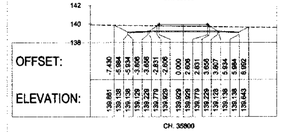


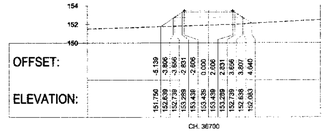












PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT&NU

H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0023	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

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1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS).
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-280-0006-0001.

REG. PROFESSIONAL

No.	DESCRIPTION	BY	CHKD	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

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DRAFTSPERSON	W RIDGARD	NR	2018/11/11	
DESIGNER	A VAN HEMEREN	NR	2018/11/27	
CHECKER	G JOHNSTONE		2018/11/27	
DESIGN COORD	F VAN BILJON		2018/11/27	
RESP. ENG.	R HALM		2018/11/27	
LEAD DISC. ENG.	F VAN BILJON		2018/11/27	
AREA LEAD	F VAN BILJON		2018/11/27	
ENG. MANAGER	D STANGER		2018/11/27	
AREA MANAGER	F PITTMAN		2018/11/27	
DRAWING APPROVAL STATUS:	INTERNAL / CLIENT REVIEW			

ROLE	NAME	SIGNATURE	DATE

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

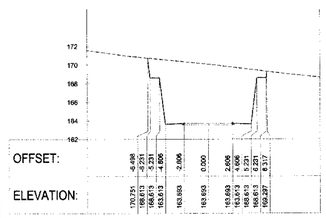
RAIL SITE
FORMATION CROSS SECTIONS
CH. 25200m TO 36700 m

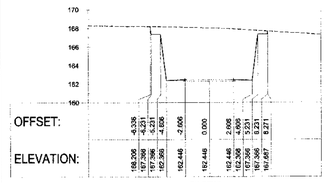
SCALE	DWG No.	REV
1:200 (A0 AS NOTED)	H353004-30000-224-273-0008-0001	A

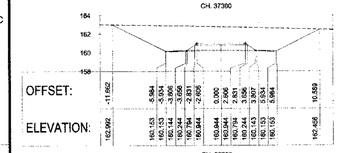
SHEET SIZE: A0

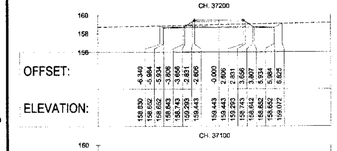
STAMPS
STAMPS
STAMPS

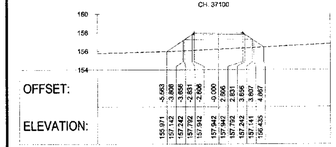
DWG. No. H353004-30000-224-273-0009-0001

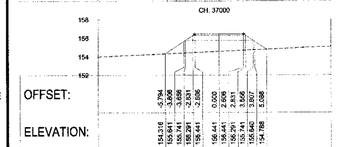


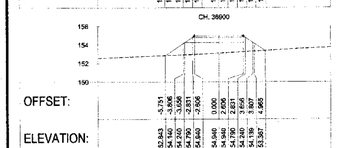


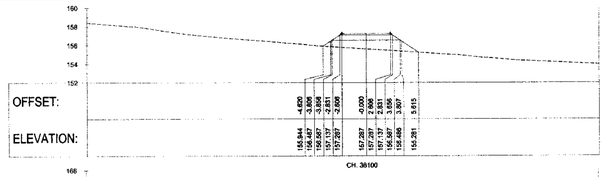


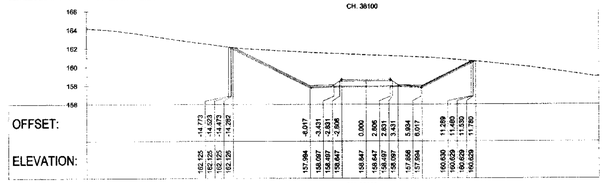


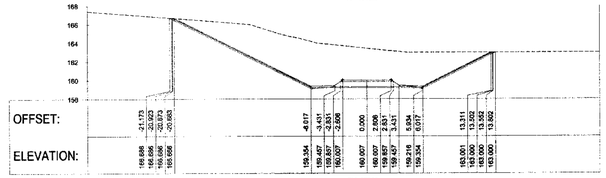


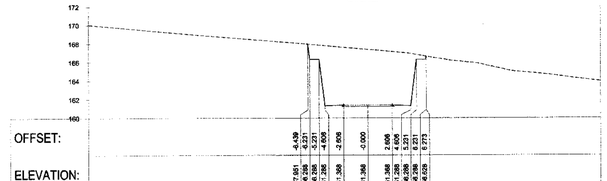


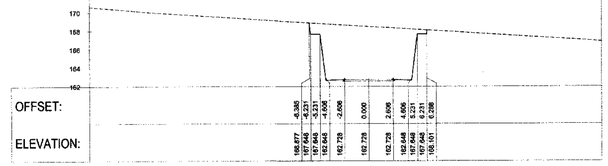


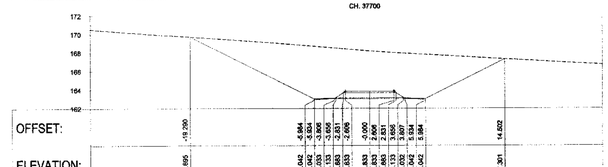


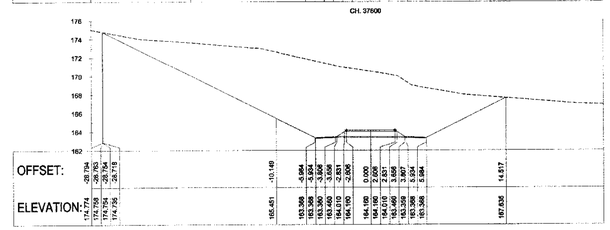


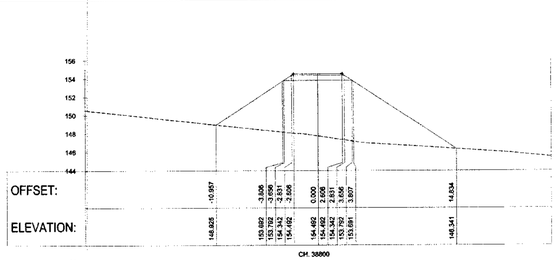


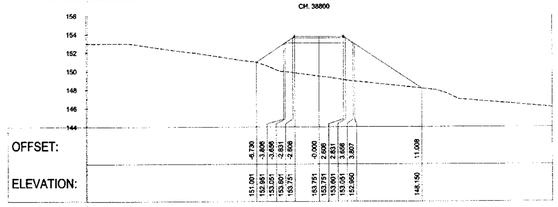


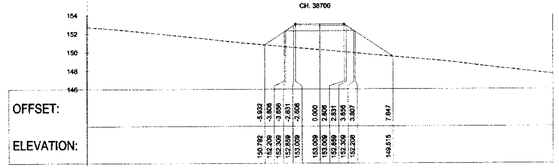


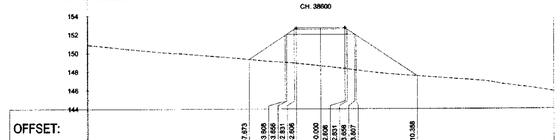


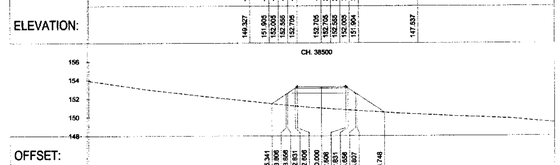


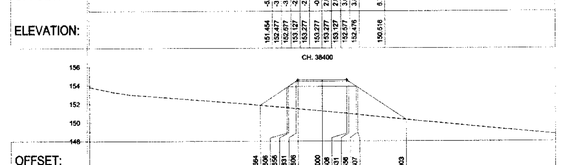


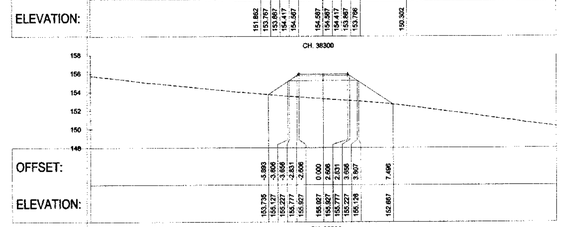


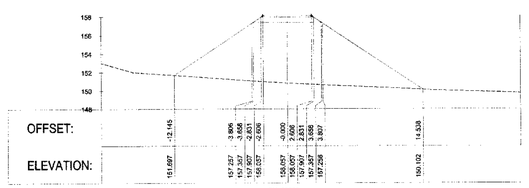


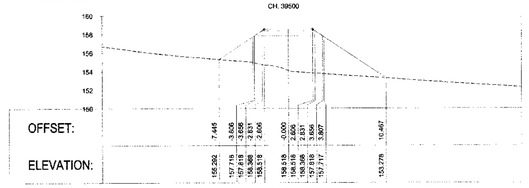


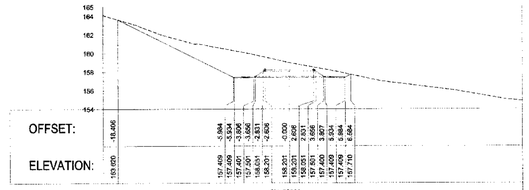


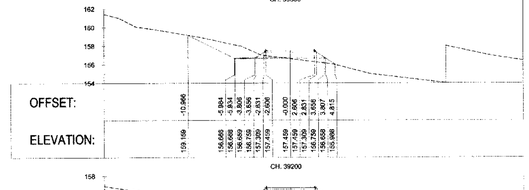


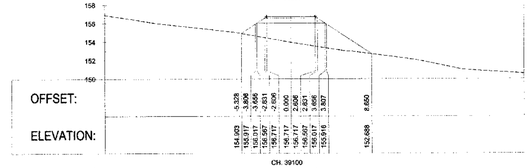


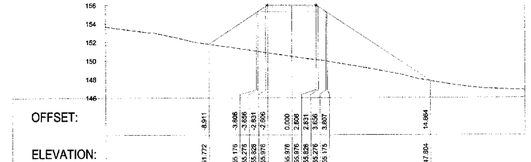


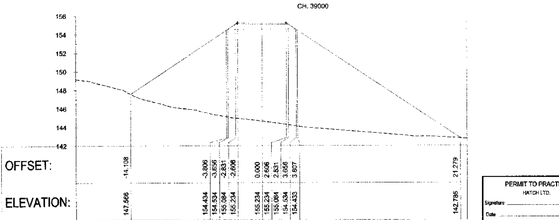












DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km

REFERENCE DRAWINGS

NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0007-0001.

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BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 36800m TO 39500 m

SCALE	DWG. No.	REV
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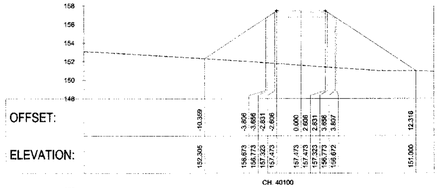
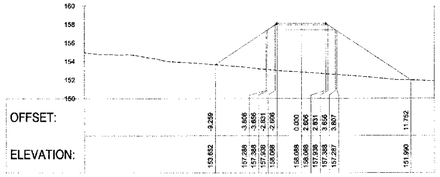
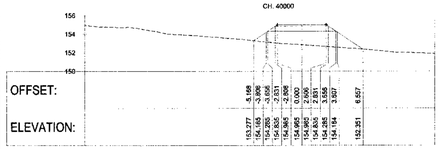
ON A3 NOTED	SHEET SIZE: A3	

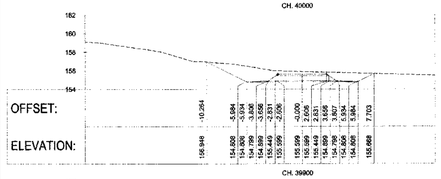
BASERNAMES STAMES
SPLES

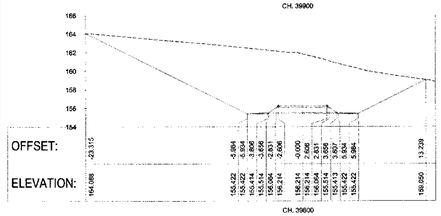
DWG. No. H353004-30000-224-273-0010-0001

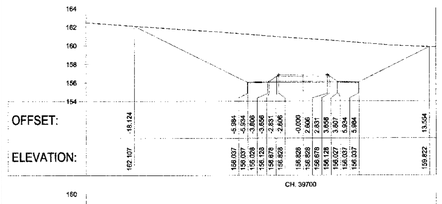


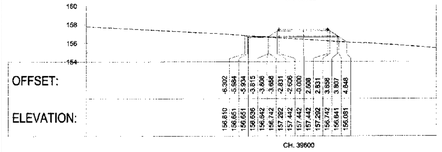


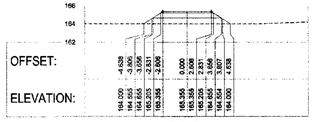


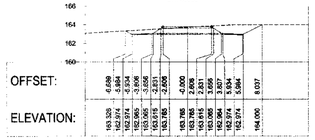


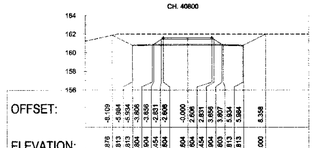


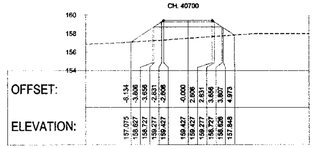


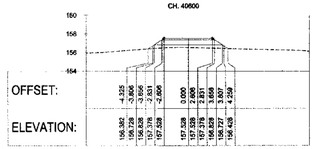


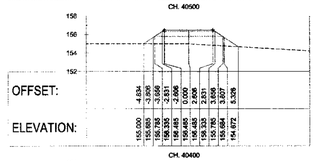


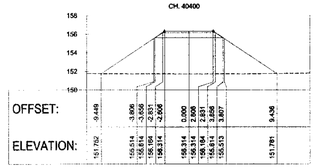


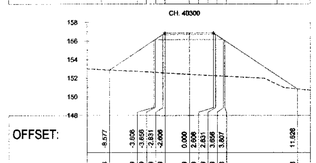


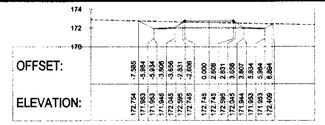


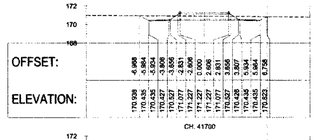


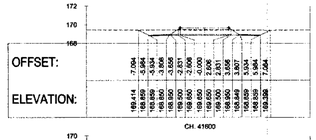


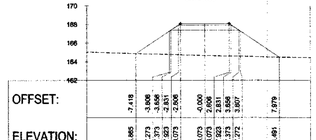


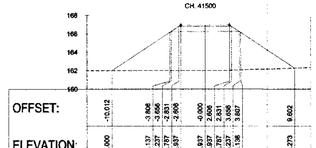


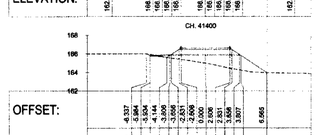


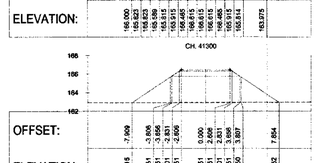


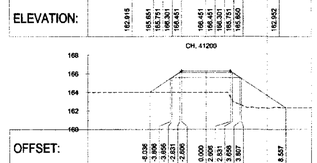


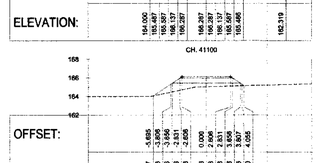


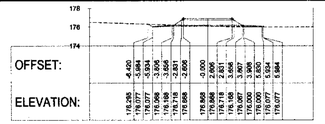


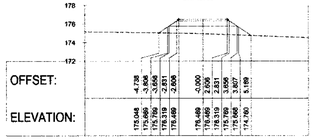


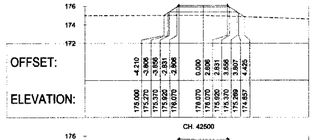


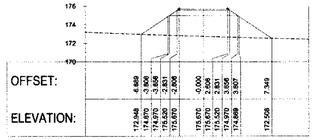


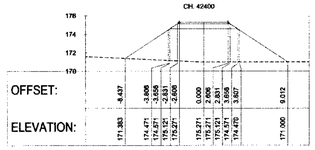


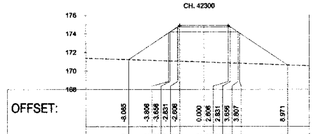


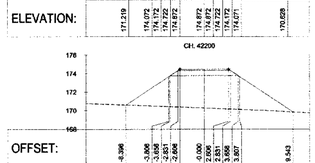


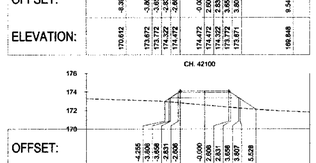


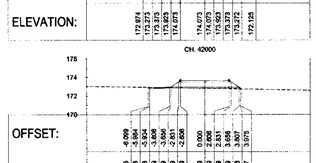


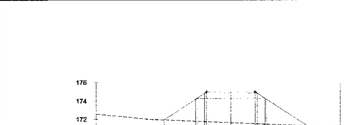


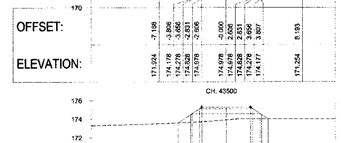


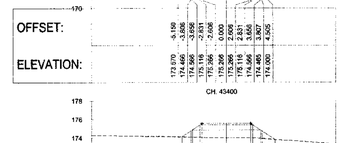


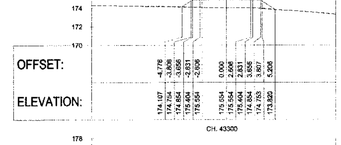


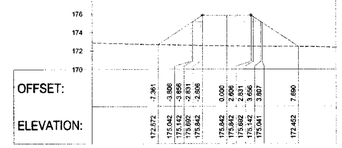


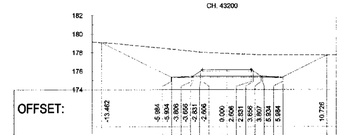


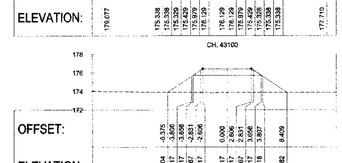


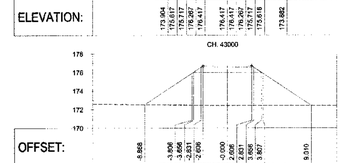


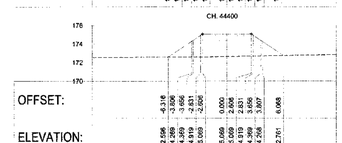


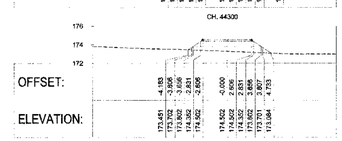


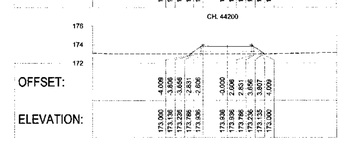


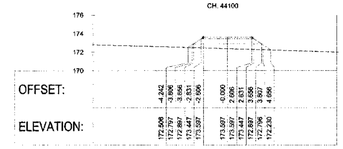


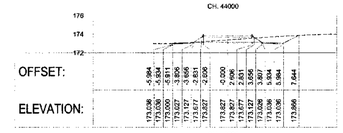


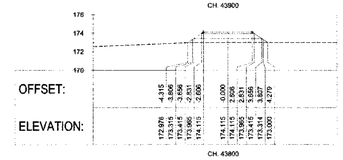


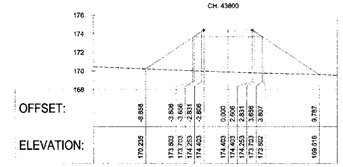


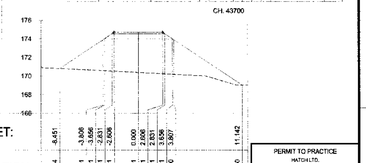












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H353004-30000-220-294-0003 to 0005	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGSITUDINAL SECTION CH. 0.220km TO 109.660km

DRAWING No. | DRAWING TITLE

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REG. PROFESSIONAL

No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

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DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	NR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
	ROLE	NAME	SIGNATURE / DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

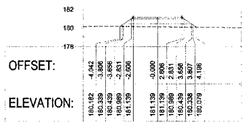
RAIL SITE
FORMATION CROSS SECTIONS
CH. 39600m TO 44400 m

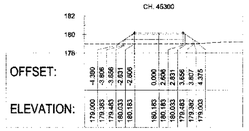
SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0010-0001	A
ON AS NOTED		

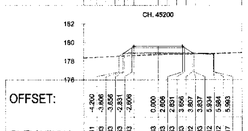
SHEET SIZE: A0

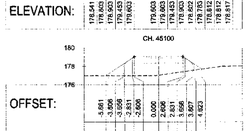
BUSINESS UNITS / DISCIPLINES / SPECIALTIES / STAGES

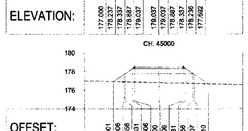
DWG No. H353004-30000-224-273-0011-0001

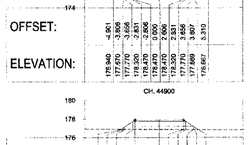


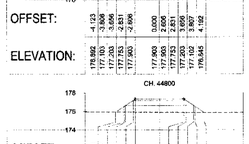


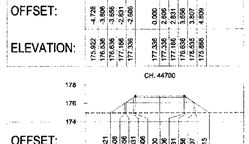


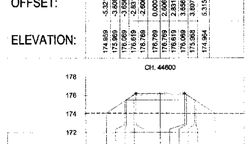


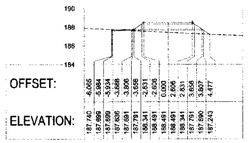


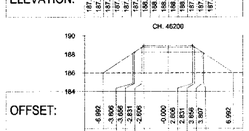


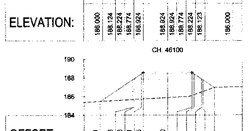


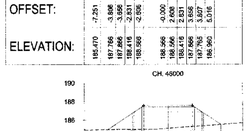


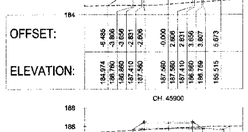


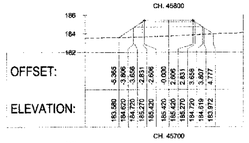


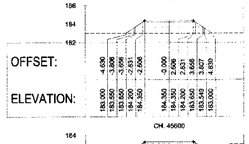


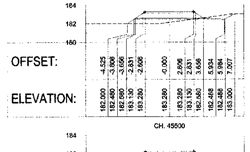


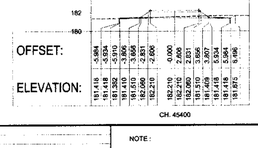


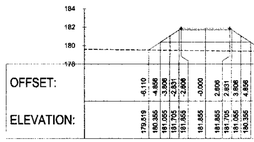


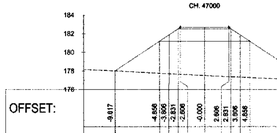


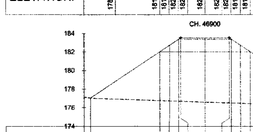


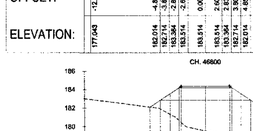


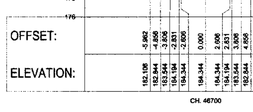


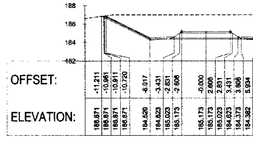


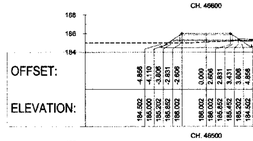


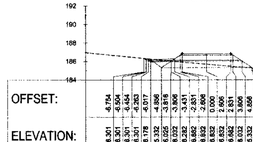


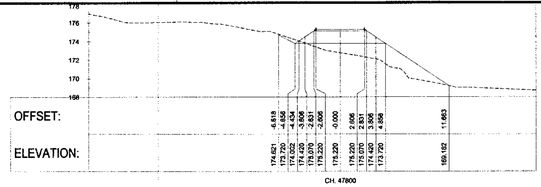


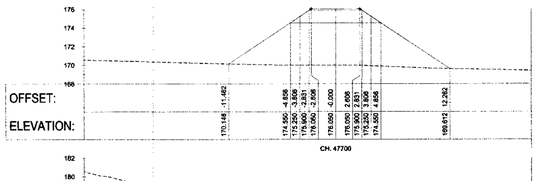


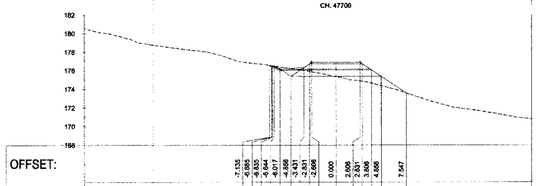


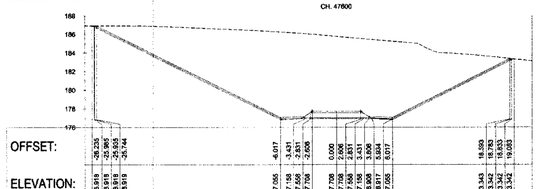


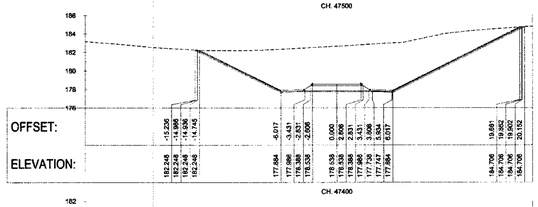


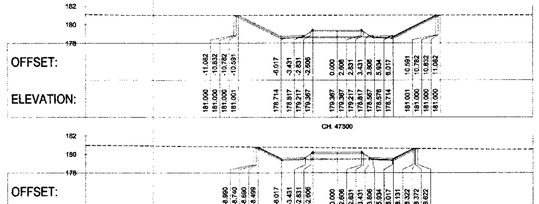


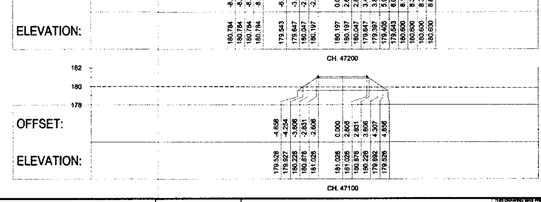


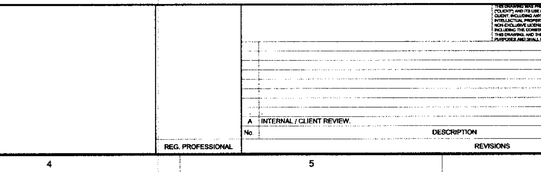


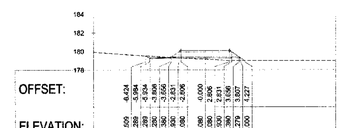


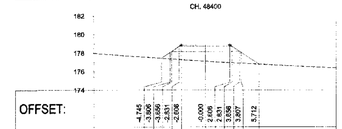


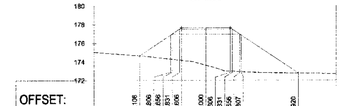


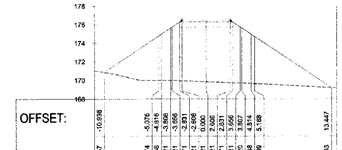


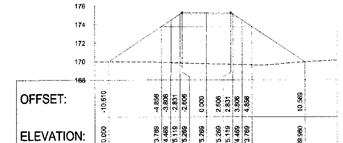


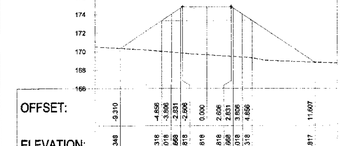


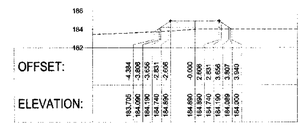


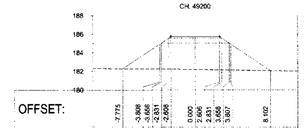


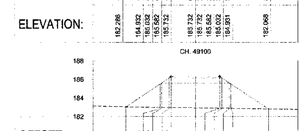


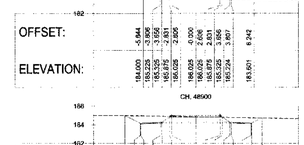


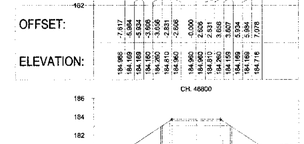


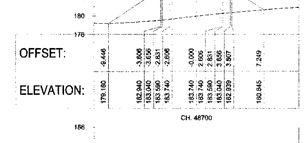












PERMIT TO PRACTICE
H3204 LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS	
H353004-30000-224-273-0001 to 0005	FORMATION SECTIONS CH. 0.222km TO 105.660km	
H353004-30000-224-271-0004 to 0007	LINE PLAN AND LONGSITUDINAL SECTION CH. 0.220km TO 109.660km	
DRAWING No.	DRAWING TITLE	

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0009-0001.

REG. PROFESSIONAL

No	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

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HATCH

DRAFTSPERSON	W KEKKARD	WR	2018/11/13
DESIGNER	A VAN NIEKERK	WR	2018/11/07
CHECKER	G JOHNSTONE		2018/11/21
DESIGN COORD.	G JOHNSTONE		2018/11/21
RESP. ENG.	D STANCIEN		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANCIEN		
AREA MANAGER	F PITTMAN		

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 44.500m TO 49.200 m

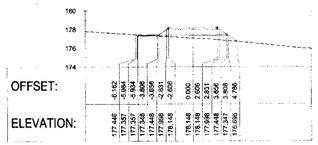
SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0011-0001	A

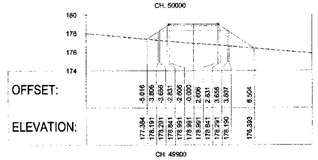
ON AS NOTED

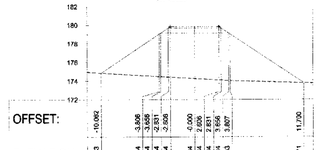
SHEET SIZE: A0

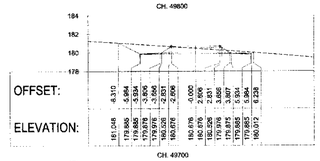
SCREENNAMES STAGES SPLES

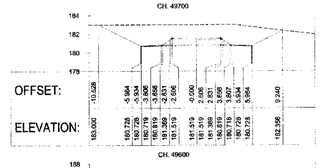
DWG. No. H353004-30000-224-273-0012-0001

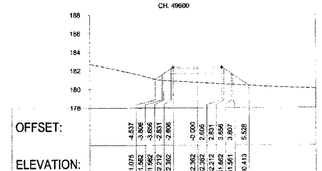


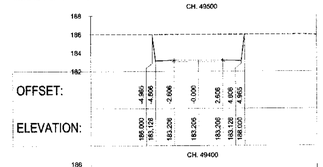


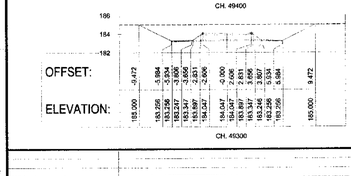


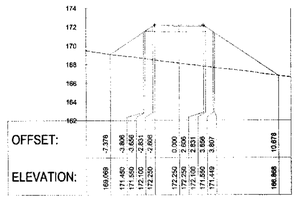


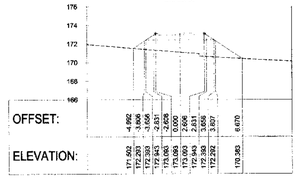


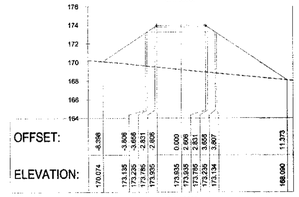


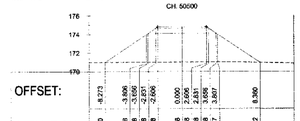


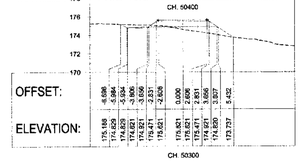


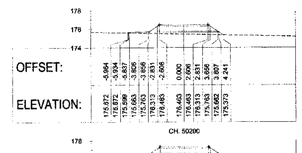


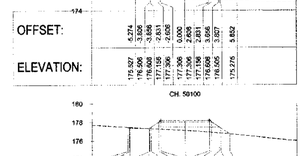


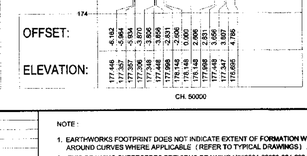


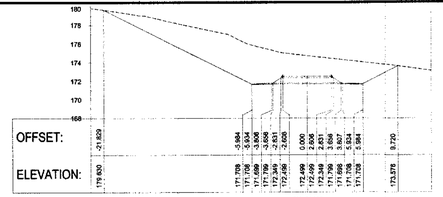


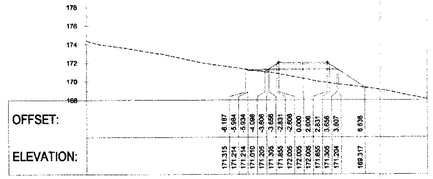


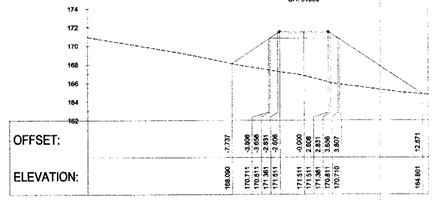


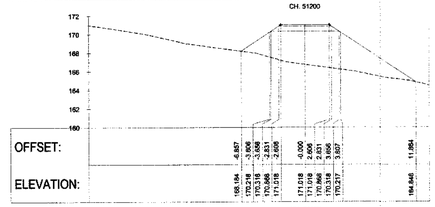


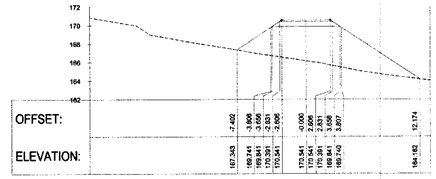


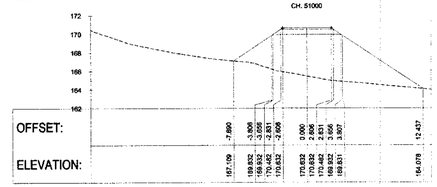


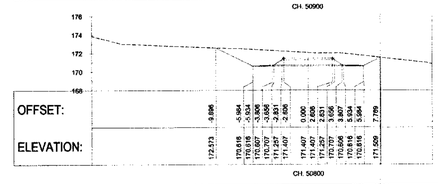


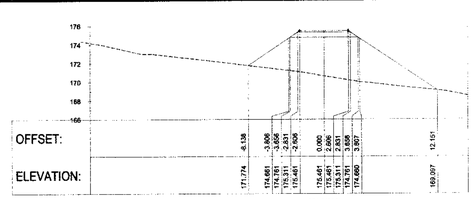


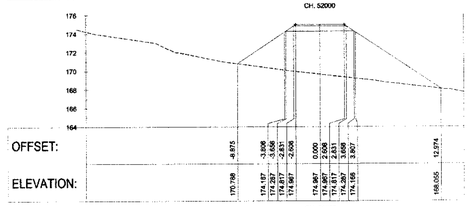


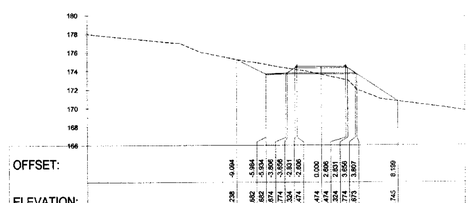


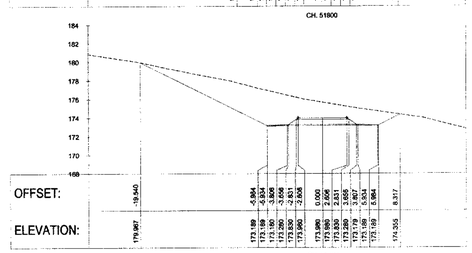


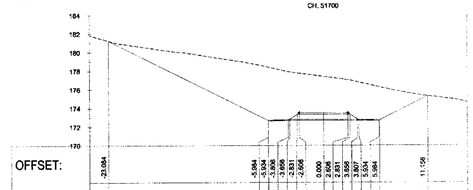


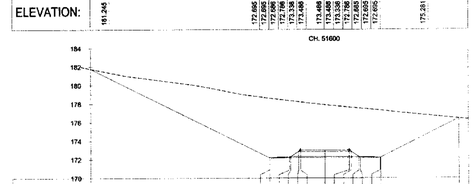


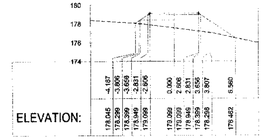


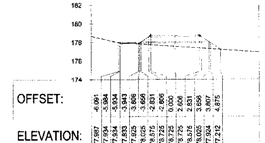


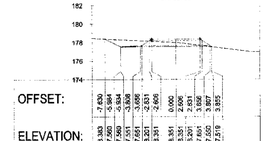


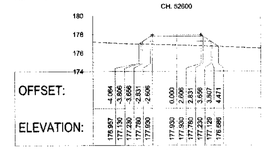


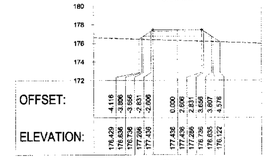


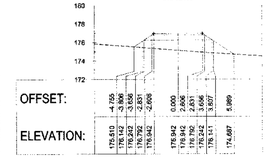


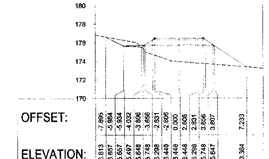


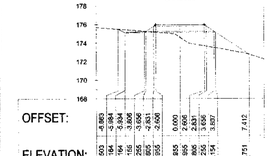












PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 012
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NOTE:
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0009-0001.

DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0008	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.980km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km

REFERENCE DRAWINGS

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No.	DESCRIPTION	BY	CHKD	DATE
A	INTERNAL / CLIENT REVIEW.	GM		2018/11/11

REVISIONS

REG. PROFESSIONAL

HATCH

DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	NR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

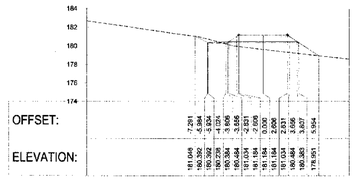
RAIL SITE
FORMATION CROSS SECTIONS
CH. 49.300 m TO 52800m

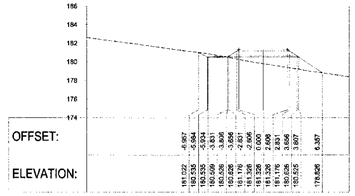
SCALE	DWG. No.	REV
1:200 ON A3 NOTED	H353004-30000-224-273-0012-0001	A

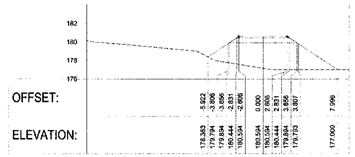
SHEET SIZE: A0

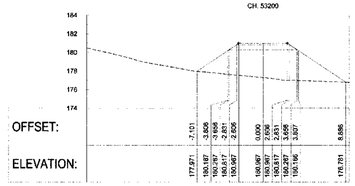
SUBSTITUTES
STAMPS
SPILES

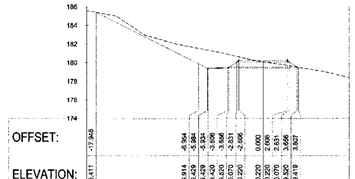
DWG. No. H353004-30000-224-273-0013-0001

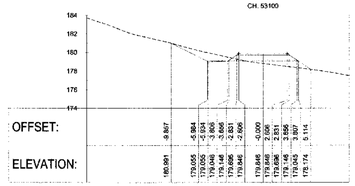


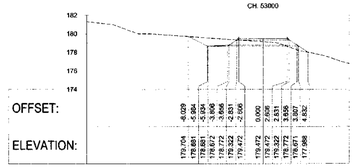


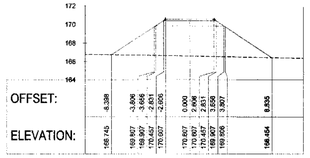


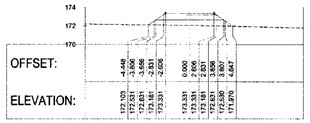


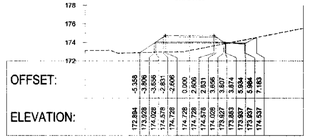


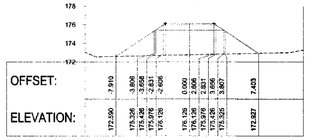


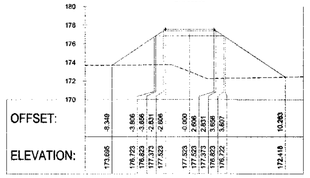


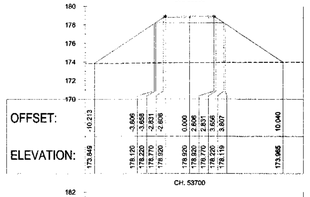


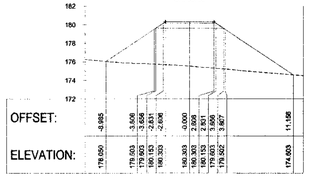


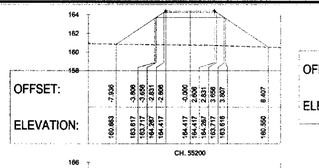


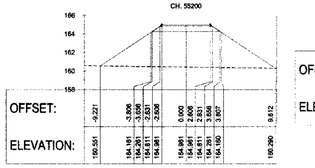


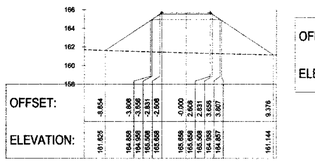


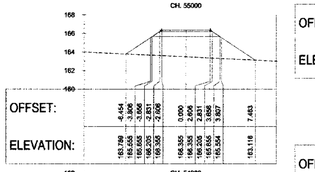


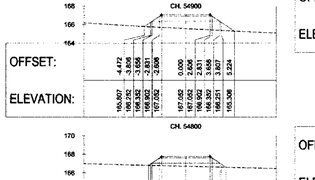


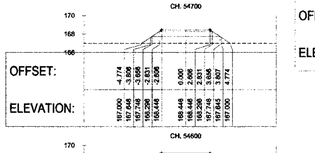


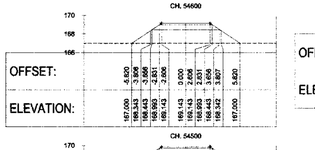


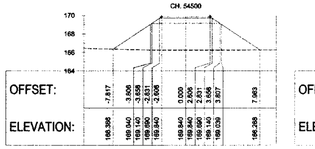


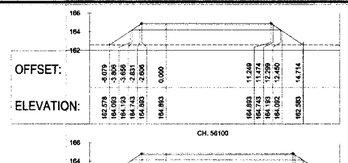


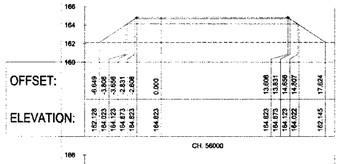


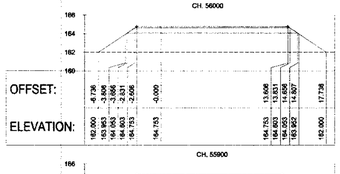


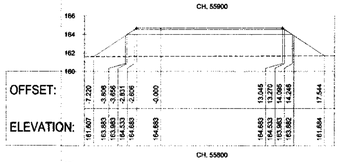


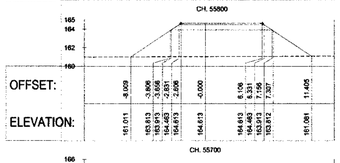


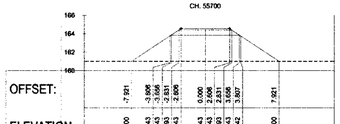


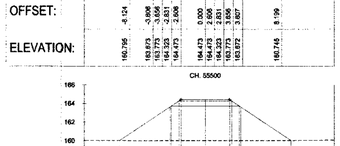


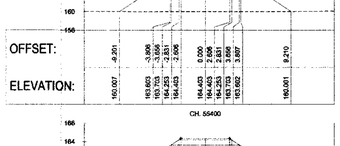


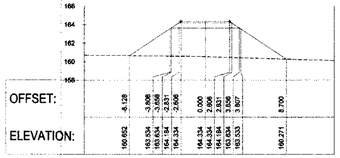


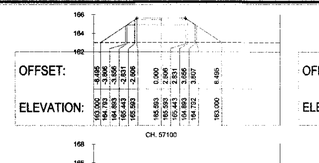


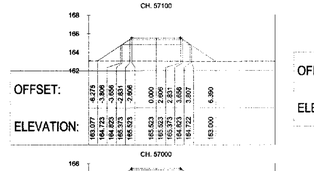


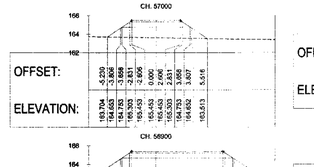


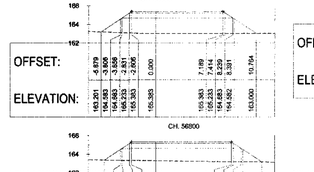


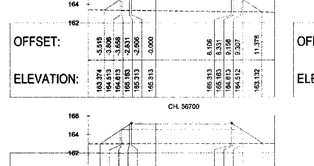


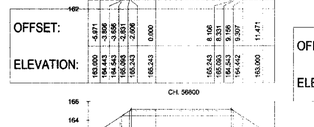


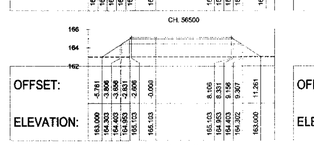


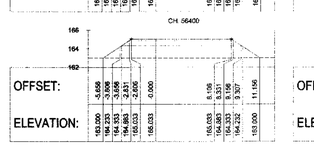


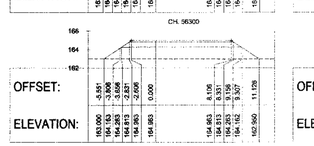


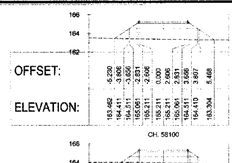


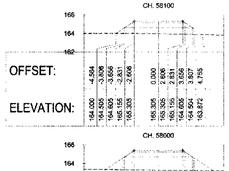


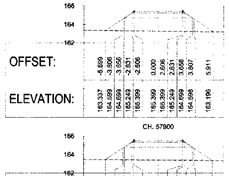


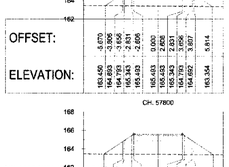


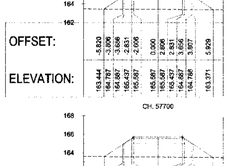


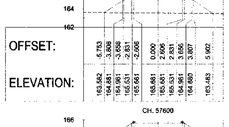


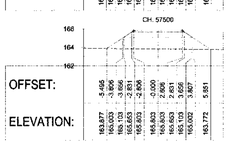


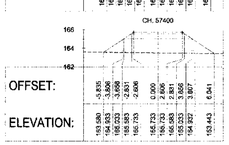


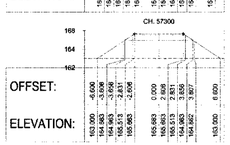












H353004-30000-220-264-0000 to 0008	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.860km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGSITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

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A	INTERNAL / CLIENT REVIEW	WR	GM	2018/11/11

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Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 52900 m TO 58100 m

SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0013-0001	A
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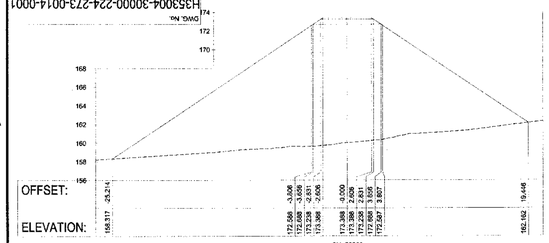
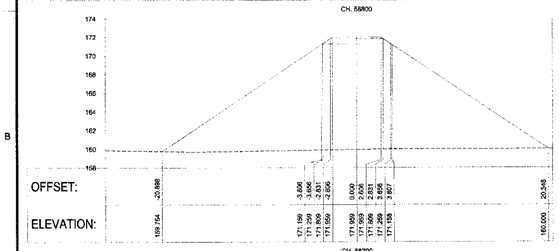
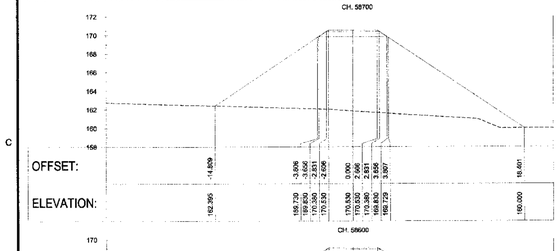
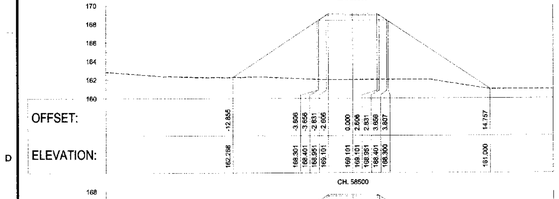
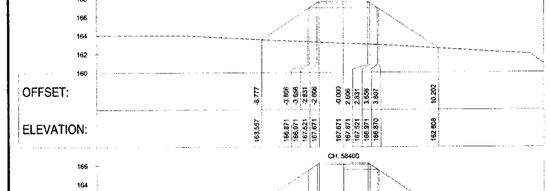
SUBSEWAGES
STAGES
SPLICES

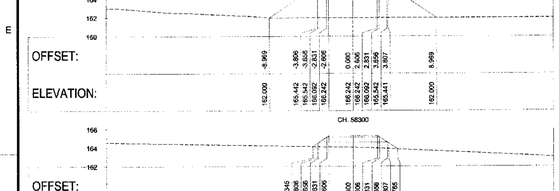


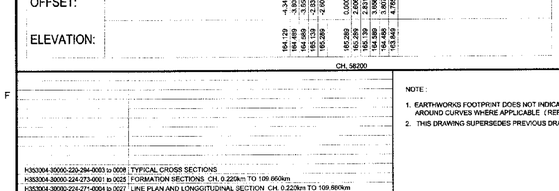


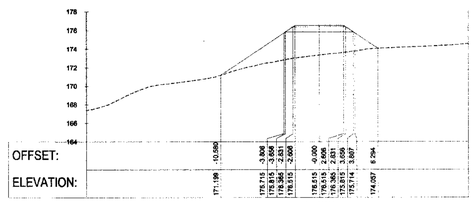


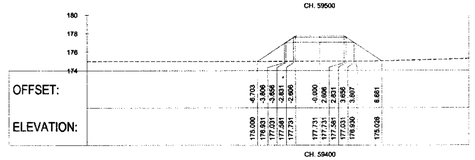


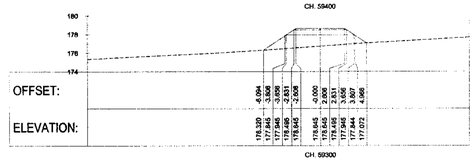


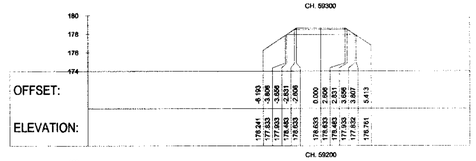


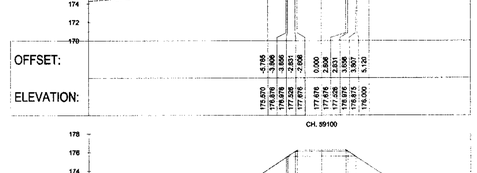


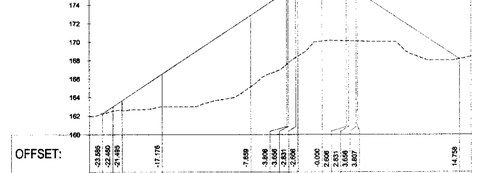


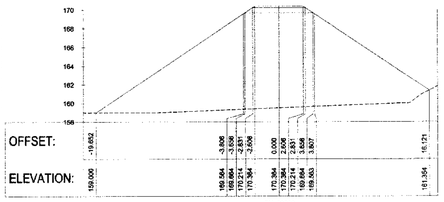


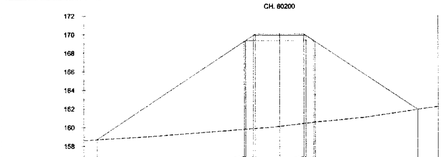


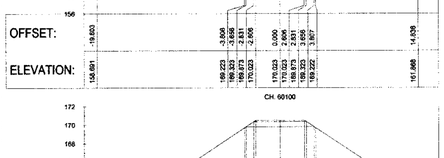


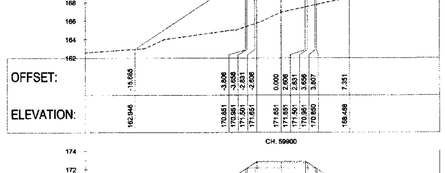


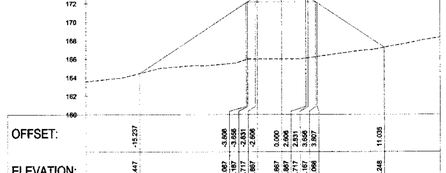


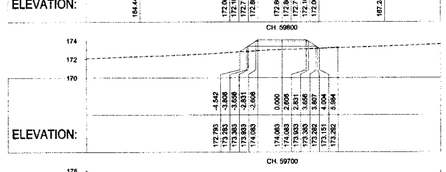


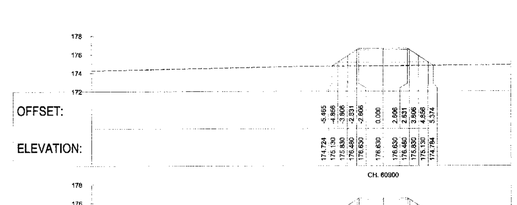


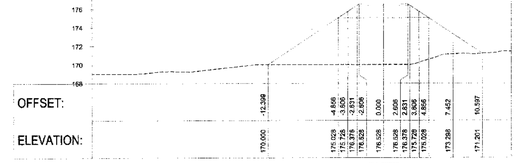


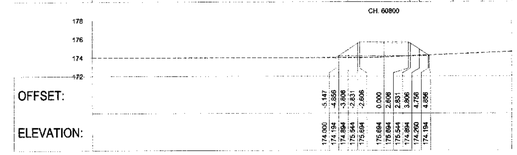


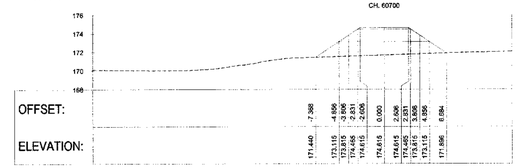


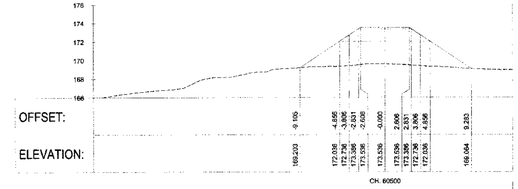


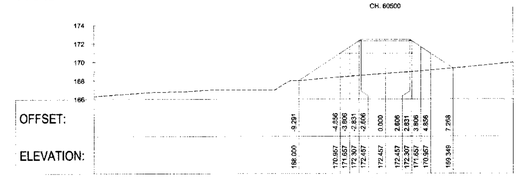












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H353004-30000-224-273-0001 to 0025 | FORMATION SECTIONS CH. 0.220km TO 109.660km
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A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	W RIDGARD	AR	2018/11/11
DESIGNER	A VAN NIEKERK	AR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 58200 m TO 60900m

SCALE	DWG No	REV
1:200	H353004-30000-224-273-0014-0001	A
UNLESS NOTED		SHEET SIZE: A0

SUBFORMATS
ISO 5457
SPACES

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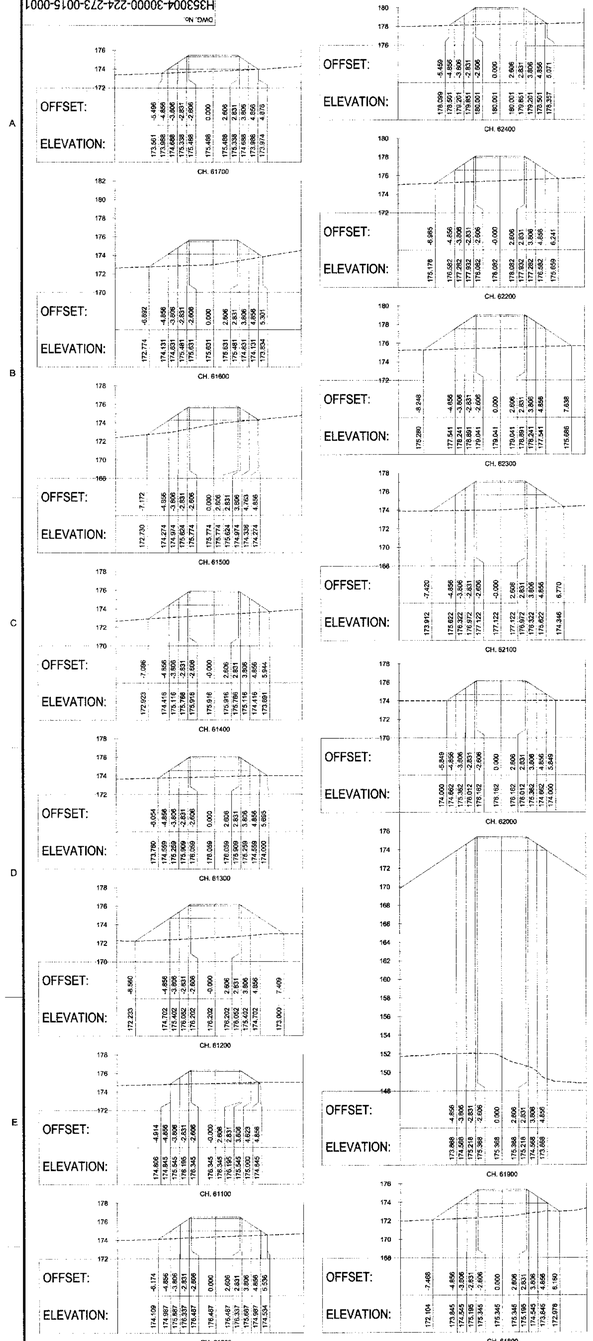

NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE . (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-266-0019-0001.

H353004-30000-220-294-0003 to 0006 : TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0325 : FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027 : LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km

DRAWING No. | DRAWING TITLE

REFERENCE DRAWINGS

No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

REG. PROFESSIONAL

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HATCH

DRAFT/SPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	NR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:		INTERNAL / CLIENT REVIEW	

Baffinland

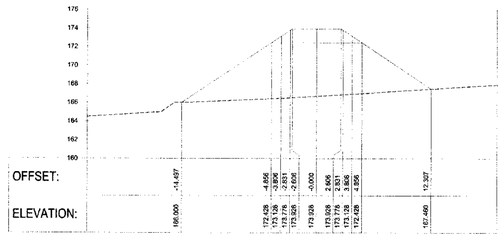
BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

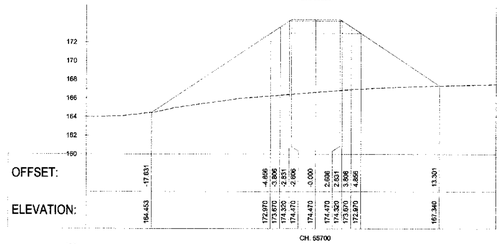
RAIL SITE
FORMATION CROSS SECTIONS
CH. 61000 m TO 65300m

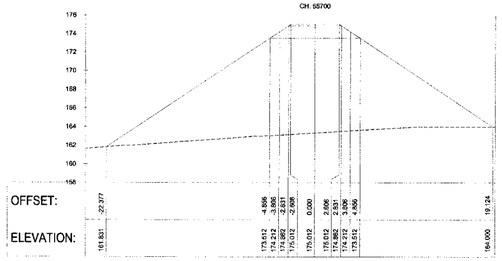
SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0015-0001	A
OR AS NOTED		SHEET SIZE: A0

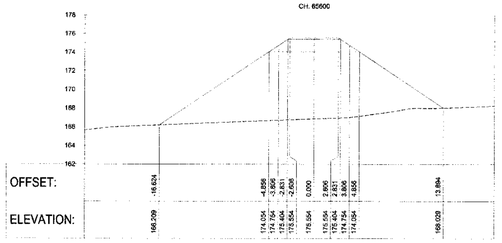
PERMIT TO PRACTICE HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

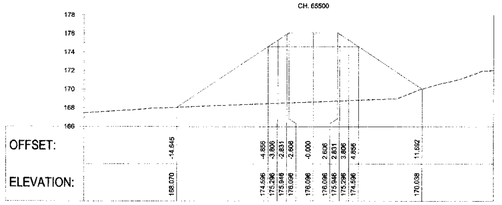
BORDER NAMES STYLES SHEET FILES

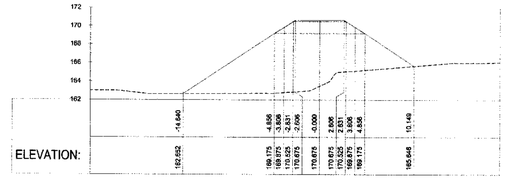


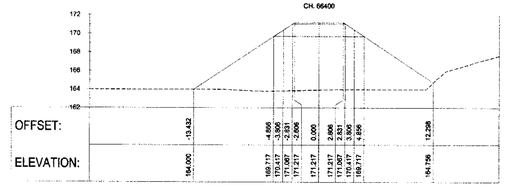


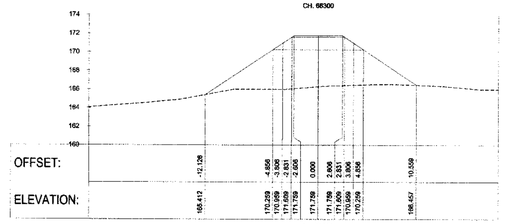


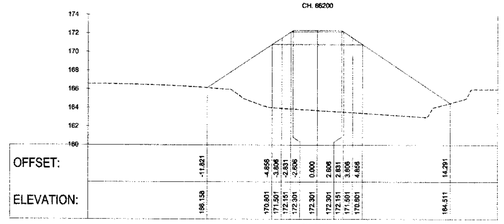


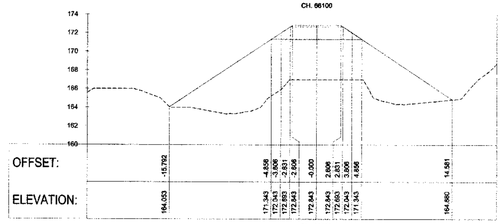


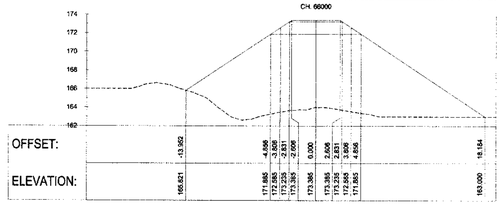


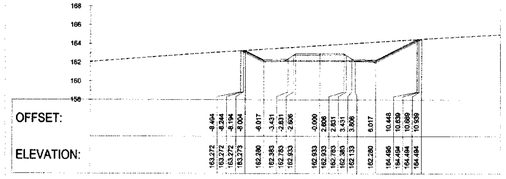


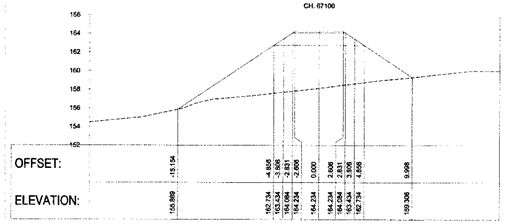


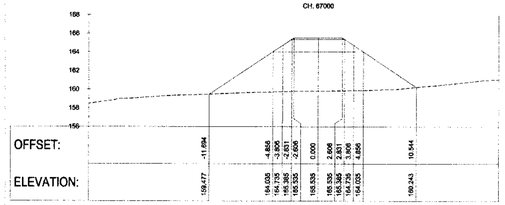


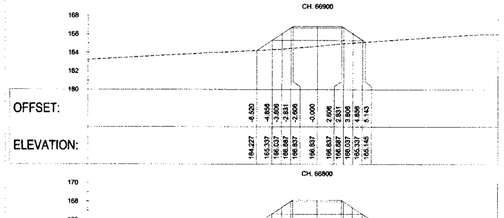


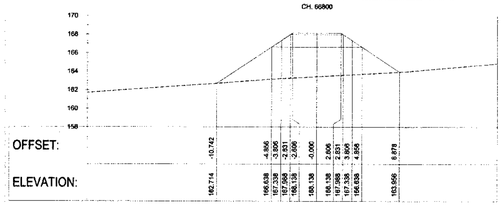


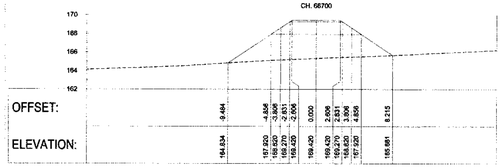


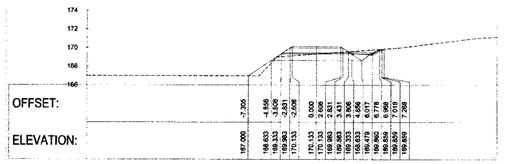


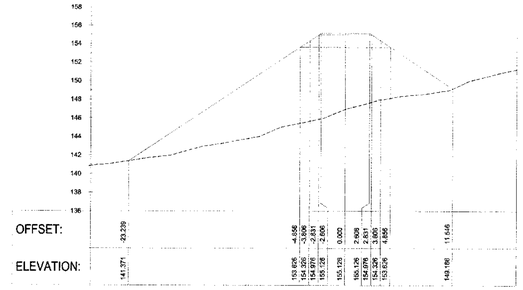


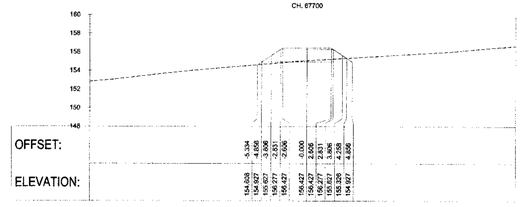


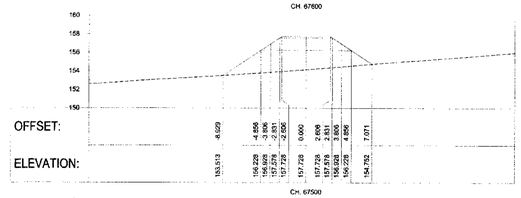


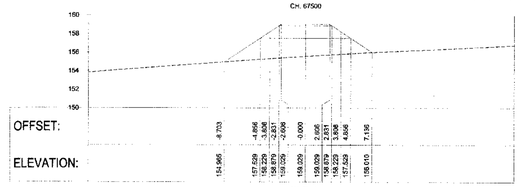


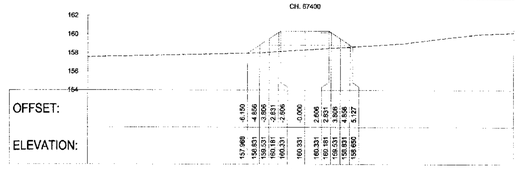


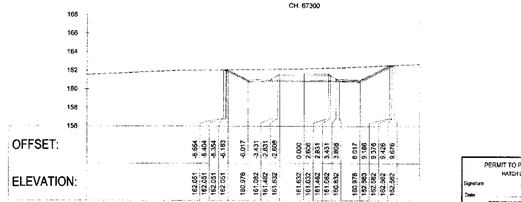












PERMIT TO PRACTICE
HATCH LTD
Signature
Date
PERMIT NUMBER: P 352
The Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGA)

H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0019-0001.

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD		2018/11/11
DESIGNER	A VAN HERKERK		2018/11/07
CHECKER	G JOHNSTONE		2018/11/21
DESIGN COORD.	F VAN BILJON		2018/11/21
RESP. ENG.	R HAUM		
LEAD DISC. ENG.	F VAN BILJON		2018/11/21
AREA LEAD	F VAN BILJON		2018/11/21
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
DRAWING APPROVAL STATUS:		INTERNAL / CLIENT REVIEW	

ROLE	NAME	SIGNATURE	DATE

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

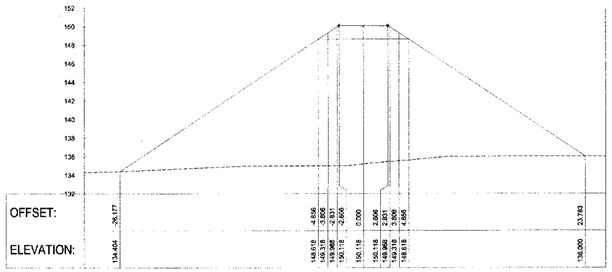
RAIL SITE
FORMATION CROSS SECTIONS
CH. 65400 m TO 67700m

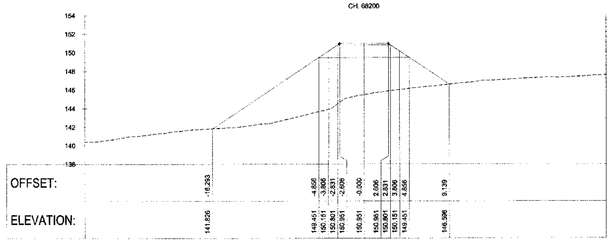
SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0016-0001	A

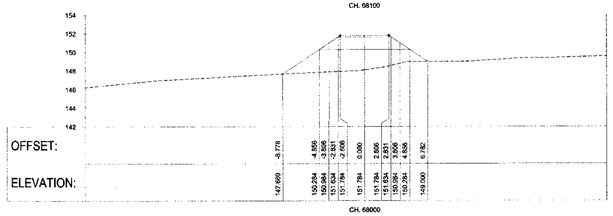
SHEET SIZE: A0

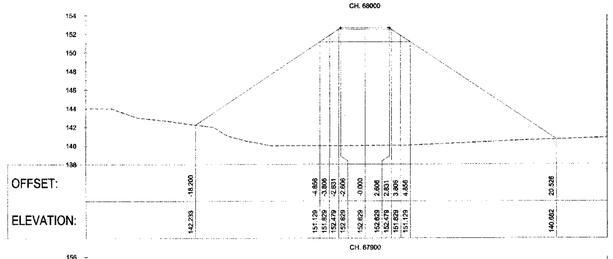
DO NOT SCALE DRAWINGS
STAMPS
IF LIES

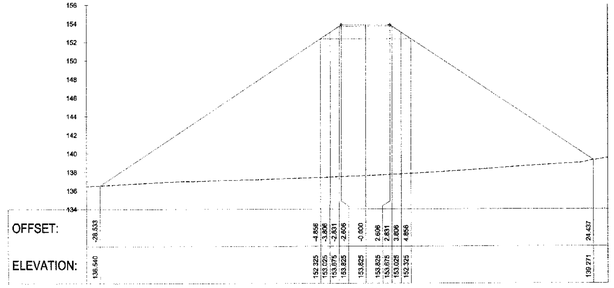
DWG No. H353004-30000-224-273-0017-0001

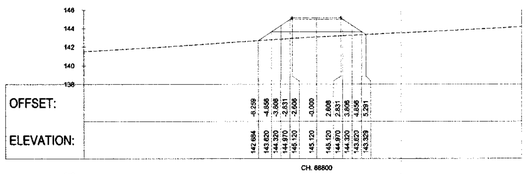


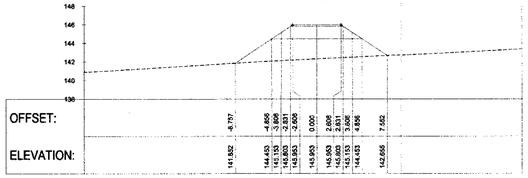


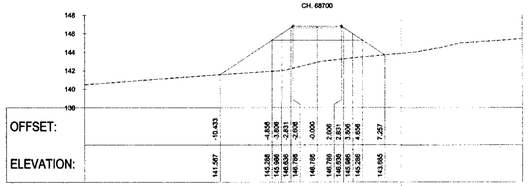


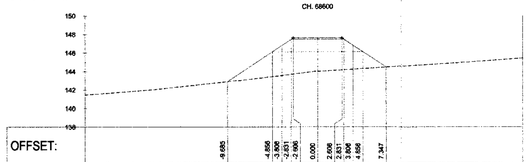


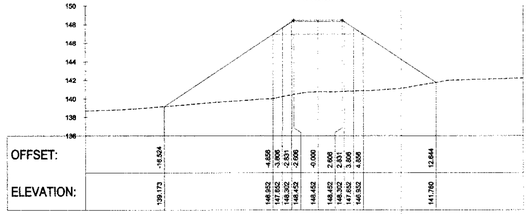


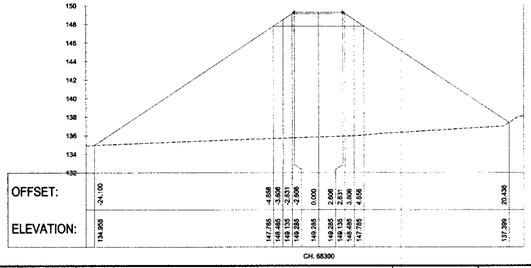


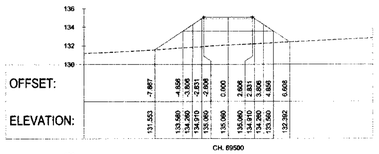


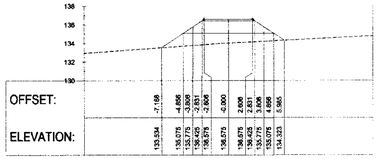


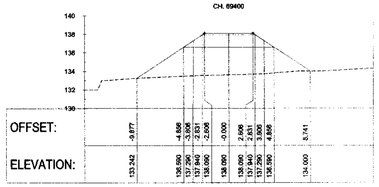


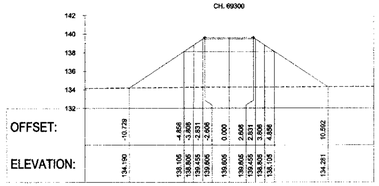


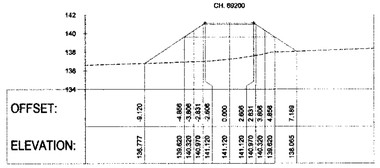


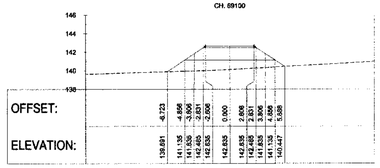


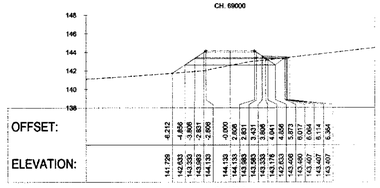


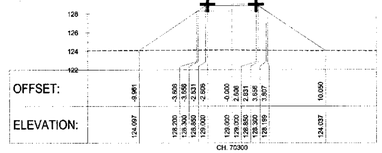


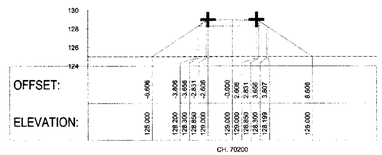


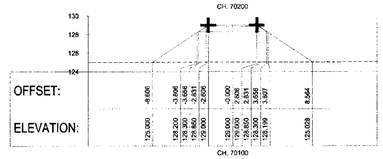


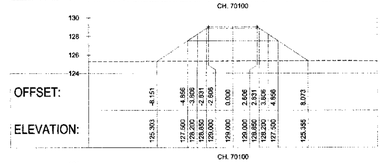


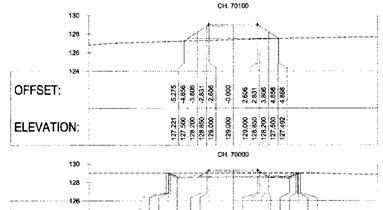


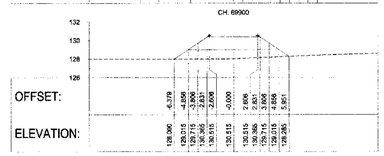


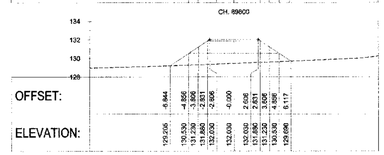


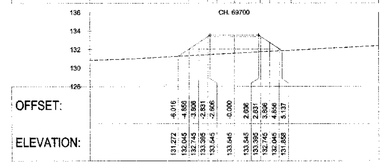












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H353004-30000-220-264-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGSITUDINAL SECTION CH. 0.220km TO 109.660km
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CH. 67800 m TO 70300m

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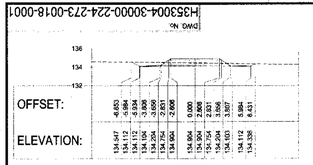

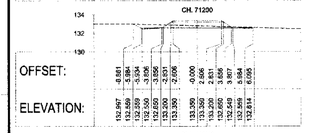

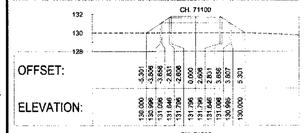

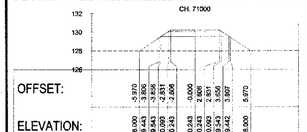

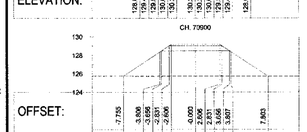

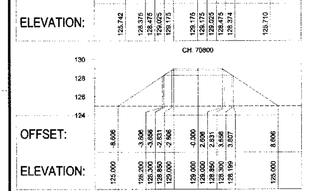

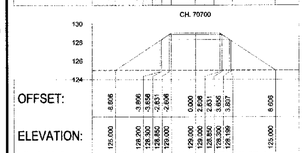

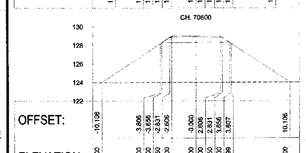

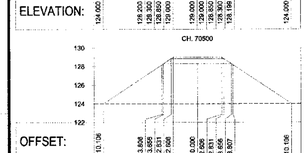

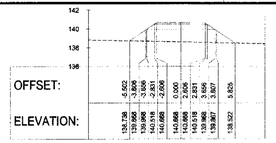

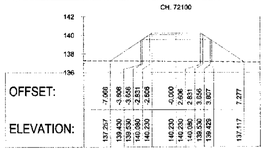

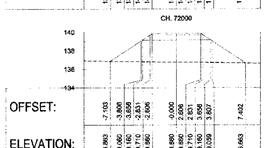

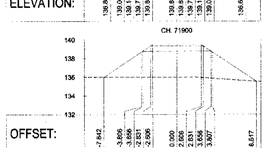

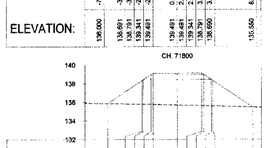

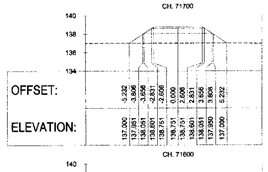

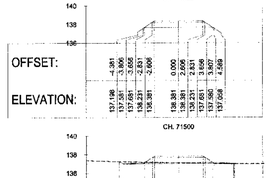

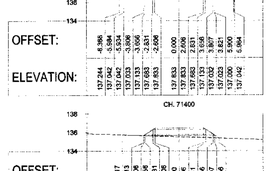

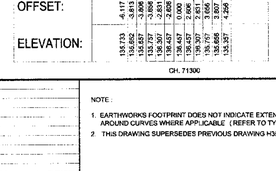

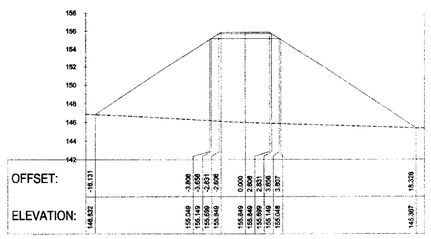

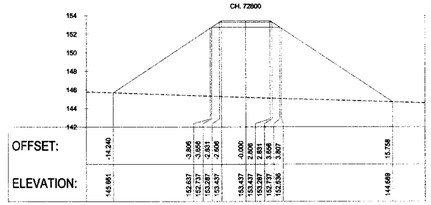

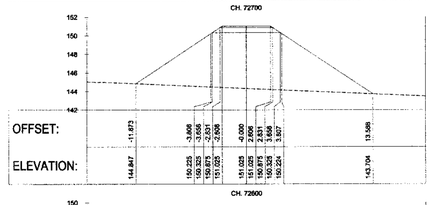

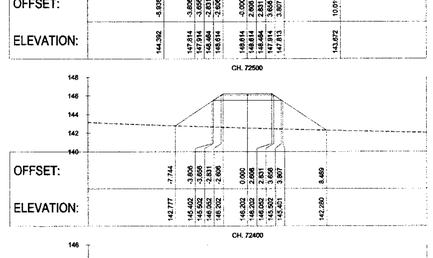

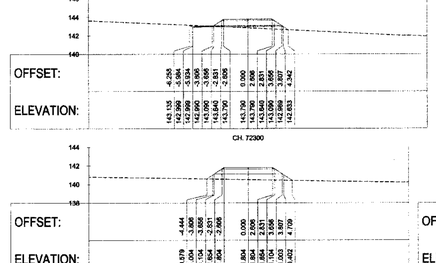

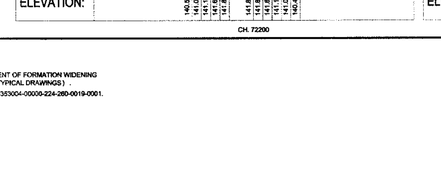

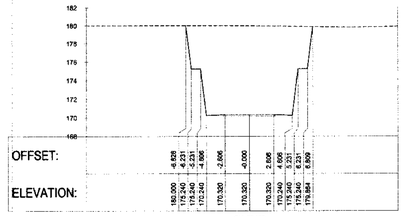

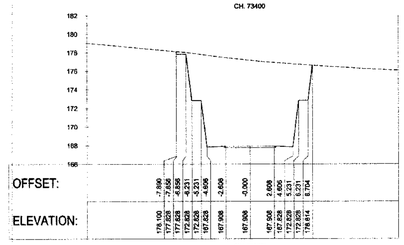

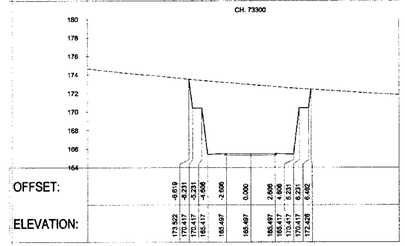

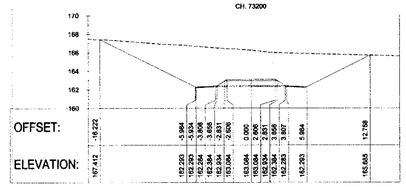

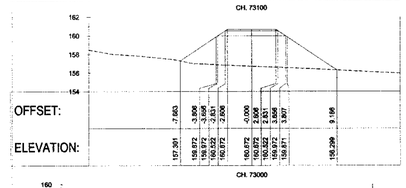

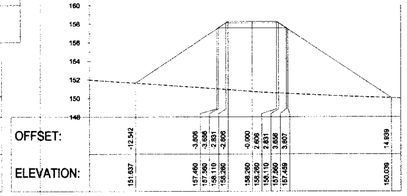

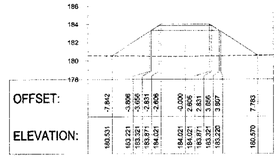

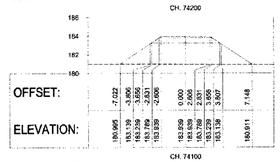

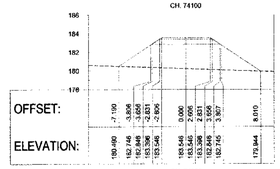

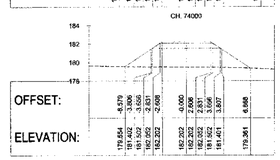

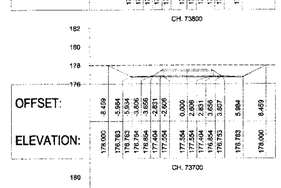

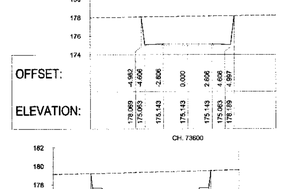

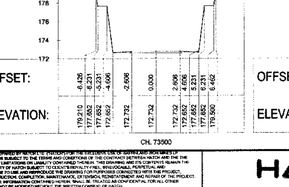

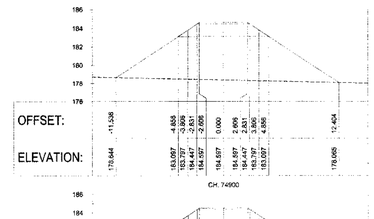

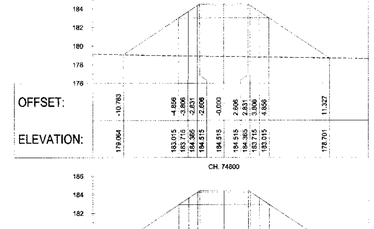

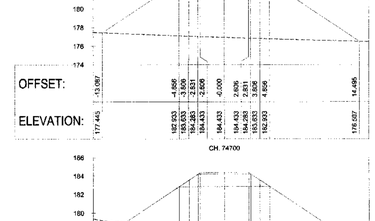

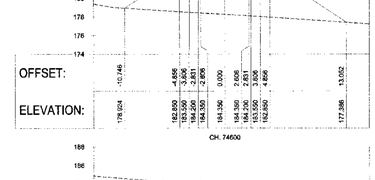

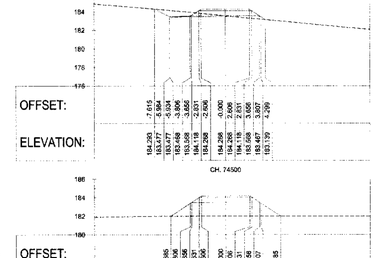

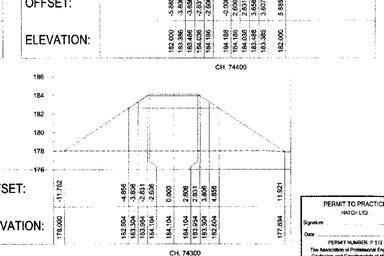

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H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
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DRAWING No.	DRAWING TITLE

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REVISIONS

HATCH

DRAFTSPERSON	W REKGARD	WR	2018/11/11
DESIGNER	A VAN NIEKERK		2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:		INTERNAL / CLIENT REVIEW	

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

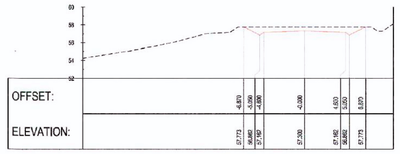
RAIL SITE
FORMATION CROSS SECTIONS
CH. 70400 m TO 74900m

SCALE	DWG. No.	REV
1:250 OR AS NOTED	H353004-30000-224-273-0018-0001	A

SHEET SIZE: A0

SUSERNAMES
$DATES
$TIMES

1 2 3 4 5 6 7 8



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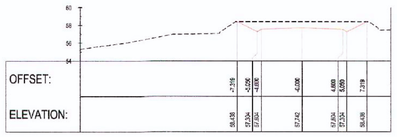

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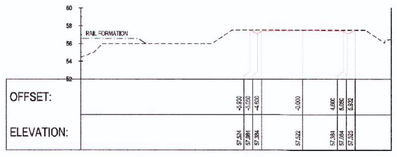

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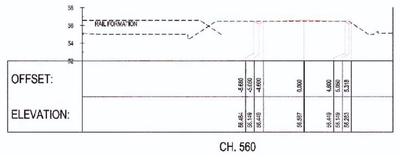

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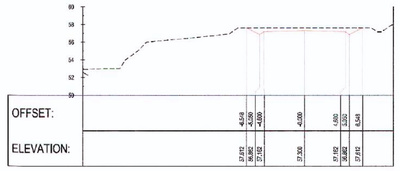

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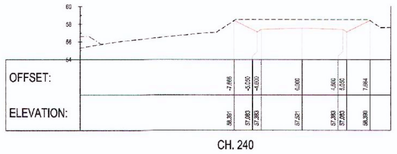

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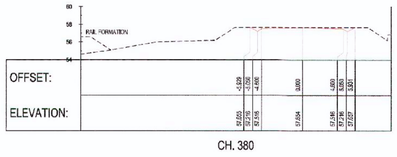

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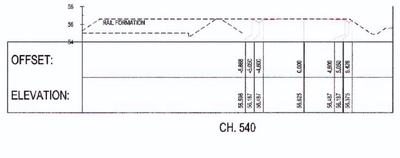

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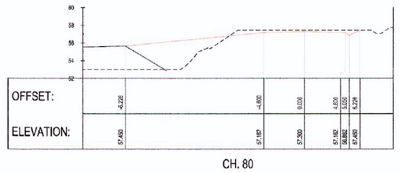

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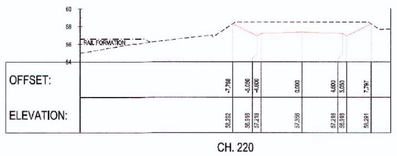

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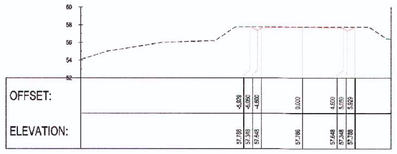

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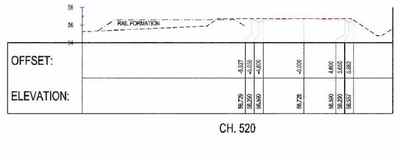

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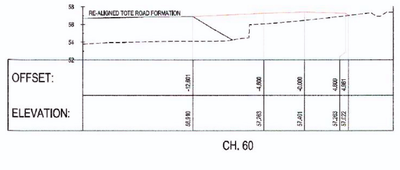

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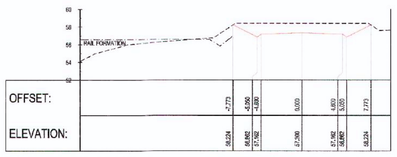

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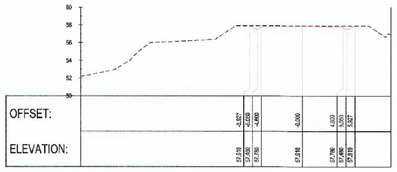

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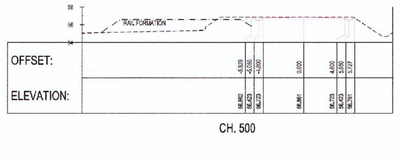

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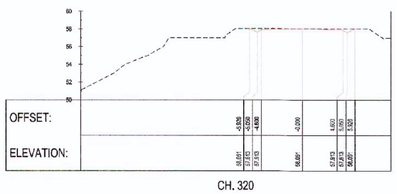

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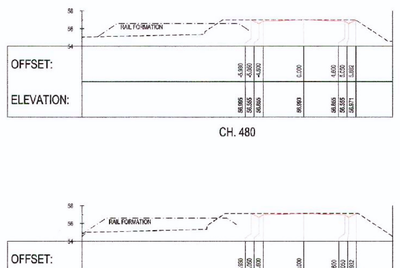

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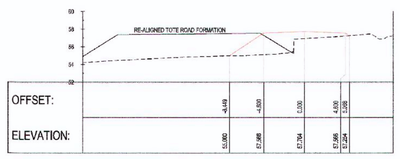

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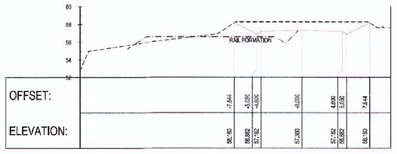

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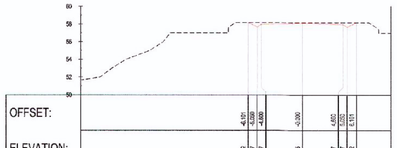

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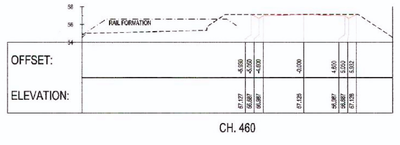

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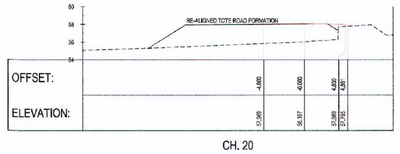

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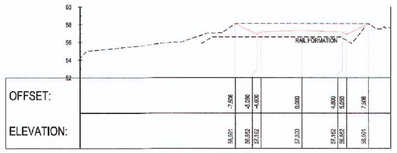

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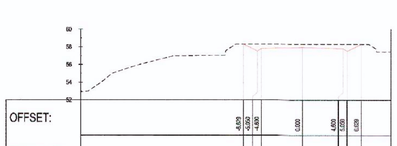

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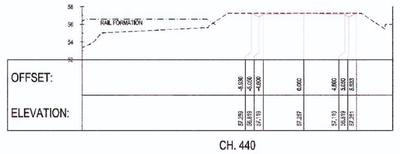

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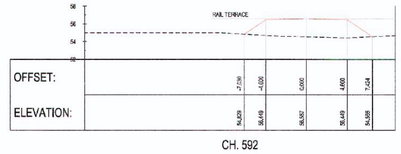

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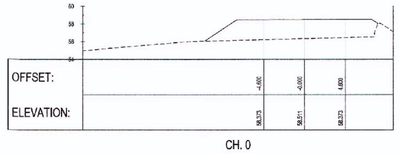

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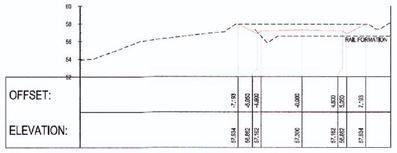

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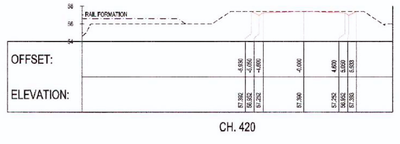

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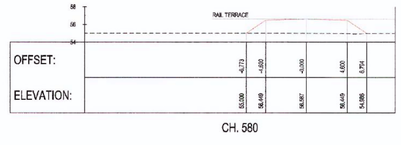

CH. 580

LEGEND :
- RE-ALIGNED TOTE ROAD FORMATION
- RAIL TERRACE ACCESS ROAD FORMATION
- RAIL FORMATION
- INCL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

DRAWING No.	DRAWING TITLE
REFERENCE DRAWINGS	
H353004-40000-221-271-0002-0001	RAIL UNLOADING AREA ACCESS ROAD
H353004-30000-224-294-0007-0001	ROAD SIGNAGE DETAIL
H353004-30000-224-294-0010-0001	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009-0001	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0031-0001	TOTE ROAD - RAIL TERRACE ACCESS - LAYOUT & LONGITUDINAL SECTION

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
0	APPROVED FOR CONSTRUCTION.	AJVN	MJ	2018/11/27

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2018/09/21
DESIGNER	A VAN NIEKERK	NR	2018/09/21
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENG.	D STANGER		
LEAD DISC. ENG.	F VAN BILJON		2018-12-19
AREA LEAD	F VAN BILJON		2018-12-19
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		2018-12-18

DRAWING APPROVAL STATUS: Approved for Construction

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER EXPANSION PROJECT

RAIL SITE (CH. 2+092)
TOTE ROAD - RAIL TERRACE ACCESS
CROSS SECTIONS CH 0+000 TO 0+592

SCALE	DWG. No.	REV
1:200 ORIG. AS NOTED	H353004-30000-224-273-0019-0001	0

SHEET SIZE: A0

FORMATION CROSS SECTIONS 2

DWG. No. H353004-30000-224-273-0021-0001

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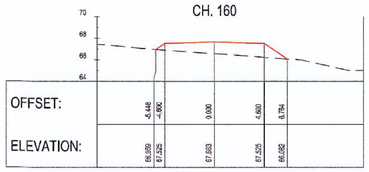

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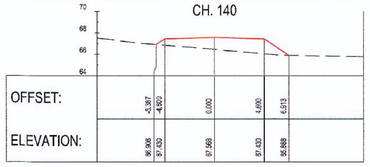

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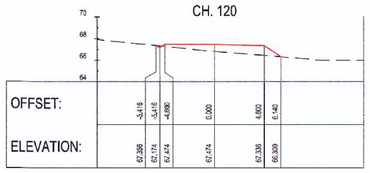

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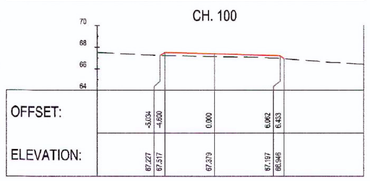

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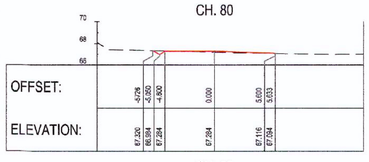

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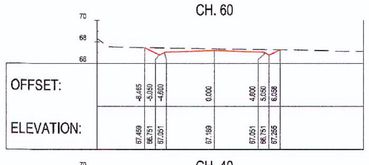

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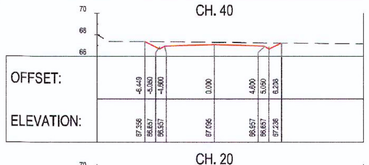

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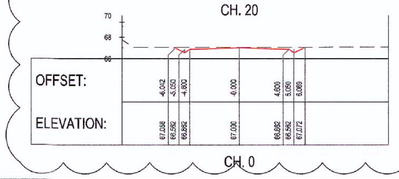

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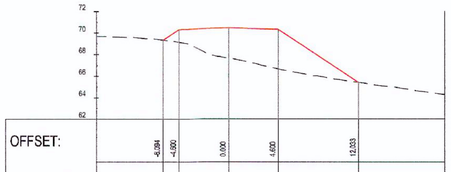

CH. 280

CH. 260

CH. 240

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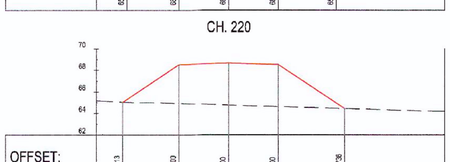

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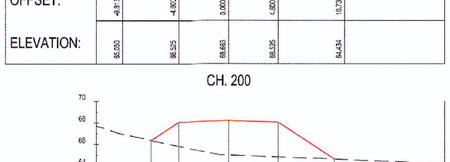

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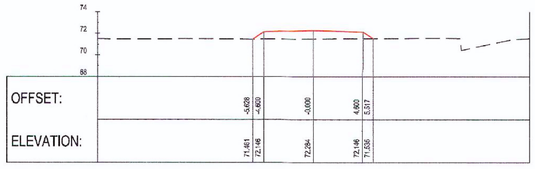

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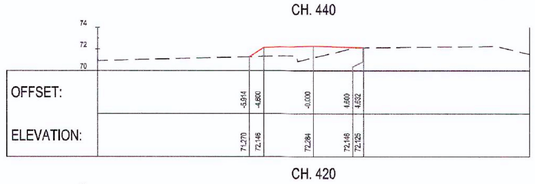

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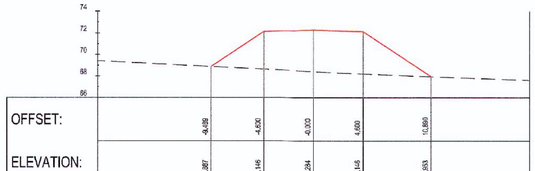

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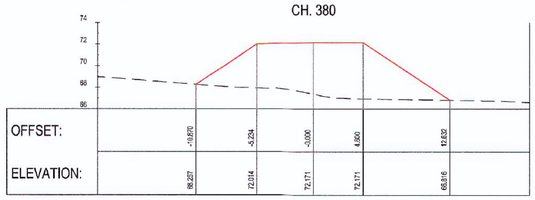

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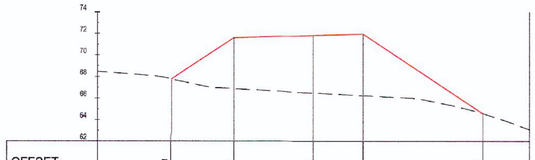

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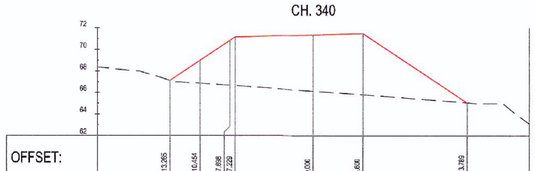

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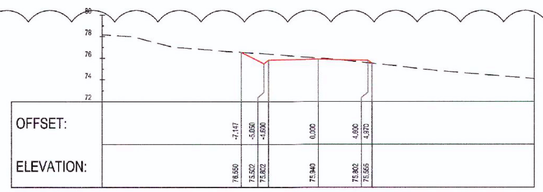

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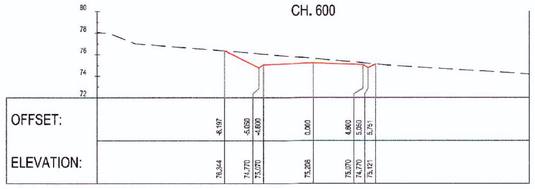

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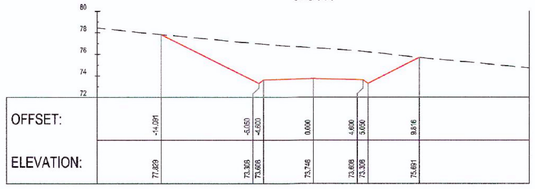

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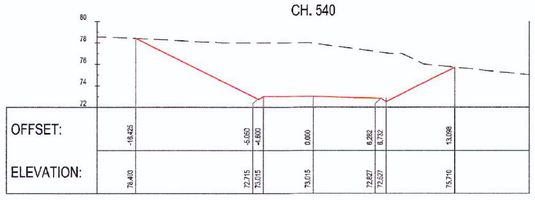

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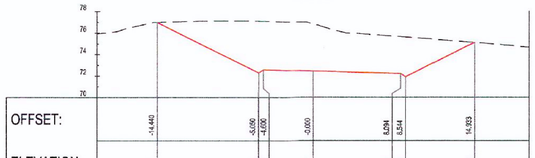

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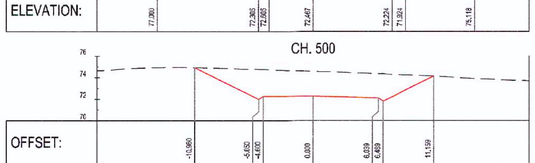

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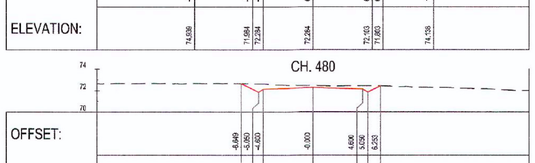

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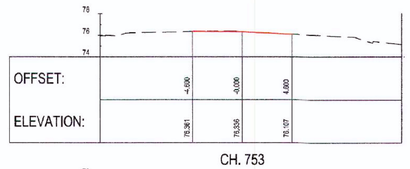

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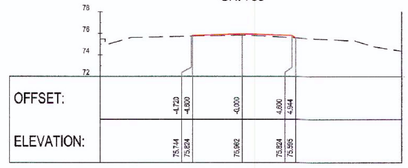

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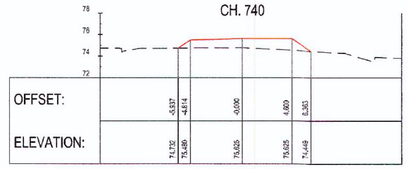

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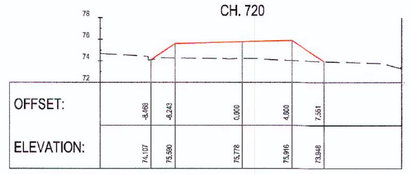

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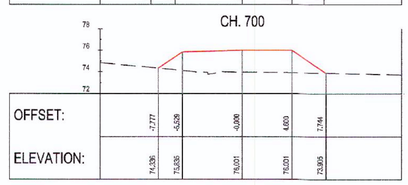

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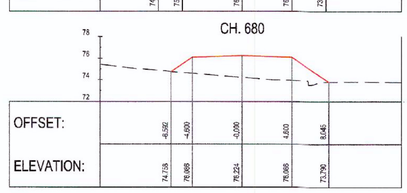

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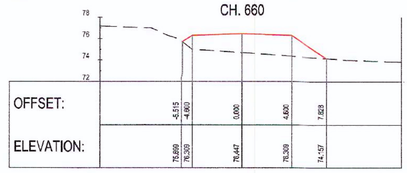

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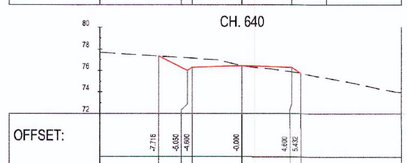


CH. 620

1

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD
Signature
Date
PERMIT NUMBER: P 012
The Association of Professional Engineers, Geologists and Geophysicists of NU/TNU

H353004-30000-224-294-0016	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0039	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0035	LAYOUT AND LONGITUDINAL SECTION GRADE CROSSING AT CH. 9+380
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REGISTERED PROFESSIONAL ENGINEER R. A. HALIM LICENSEE 2016-09-07 NWT/NU

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

THE DRAWING WAS PREPARED BY HATCH FOR THE BENEFIT OF THE CLIENT FOR THE PURPOSE AND USE OF SUPPLEMENTING THE CONTRACT DOCUMENTS BETWEEN THE CLIENT AND THE CONTRACTOR. ANY USE OF OR RELIANCE ON THE DRAWING BY ANY THIRD PARTY IS AT THE SOLE RISK OF THE THIRD PARTY. HATCH ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR ANY DAMAGES SUFFERED BY ANY THIRD PARTY AS A RESULT OF DECISIONS MADE OR ACTIONS TAKEN BASED ON THIS DRAWING. ANY THIRD PARTY USING OR RELYING ON THE DRAWING AGREES TO INDEMNIFY HATCH FOR ANY LIABILITY OR ADVERSE CONSEQUENCES ARISING FROM SUCH USE OR RELIANCE. THIS DRAWING IS THE PROPERTY OF HATCH AND THE CLIENT AS AN INSTRUMENT OF SERVICE. THE INFORMATION CONTAINED HEREIN SHALL BE TREATED AS CONFIDENTIAL BY ALL OTHER PARTIES AND SHALL NOT BE MADE AVAILABLE TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
1	CROSS SECTIONS ALTERED TO SUIT ROAD REALIGNMENT			
0	APPROVED FOR CONSTRUCTION	AJVN		2018/04/06

REVISIONS

HATCH

DRAFTSPERSON	A VAN NIEKERK	NR	2018/02/17
DESIGNER	A VAN NIEKERK	NR	2018/02/17
CHECKER	ALI AQUIL		2018/07/12
DESIGN COORD	ALI AQUIL		2018/07/12
RESP. ENGR.	R HALIM		2018-09-07
LEAD DISC. ENG.	F VAN BILJON		2018/07/11
AREA LEAD	F VAN BILJON		2018-09-07
ENG. MANAGER	D STANGER		2018-09-11
AREA MANAGER	F PITTMAN		2018-09-11
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

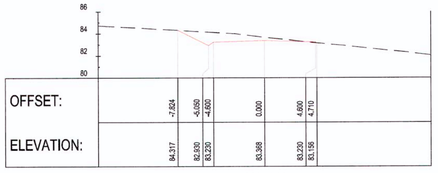
Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

TOTE ROAD
GRADE CROSSING (CH. 9+360)
CROSS SECTIONS CH. 0 TO 0+820

SCALE 1:200 OR AS NOTED
DWG. No. H353004-30000-224-273-0021-0001
REV 1
SHEET SIZE: A0

DWG. No. H353004-30000-224-273-0022-0001



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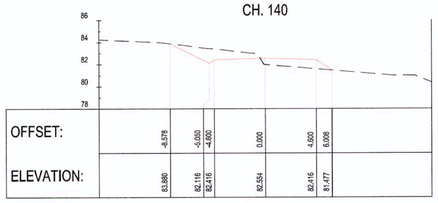

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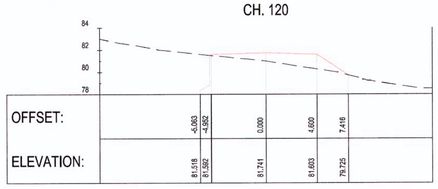

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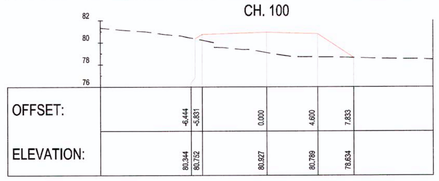

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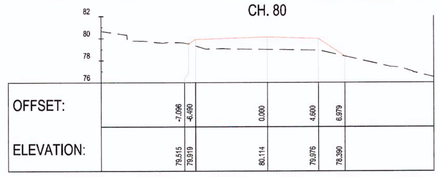

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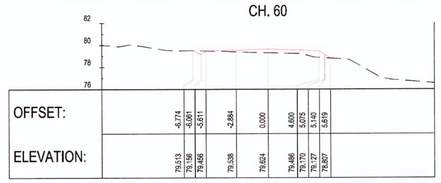

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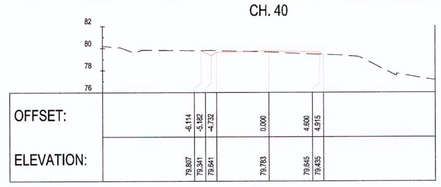

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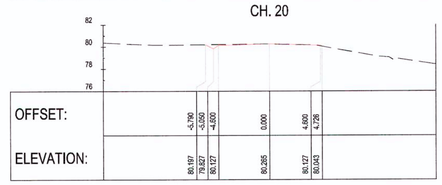

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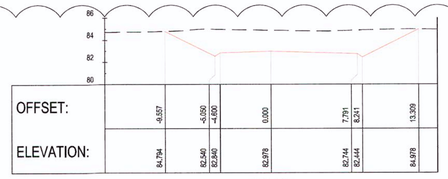

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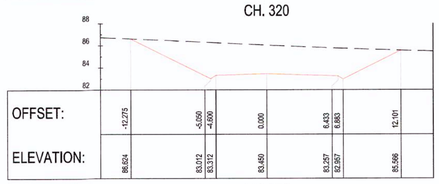

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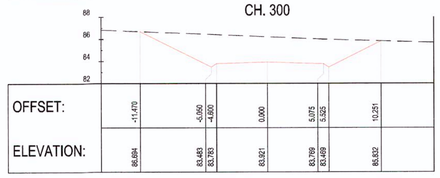

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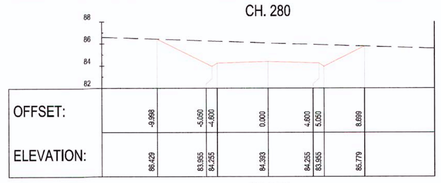

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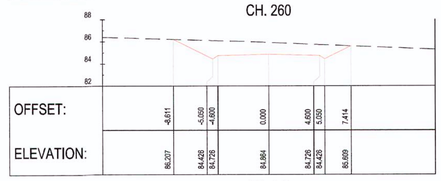

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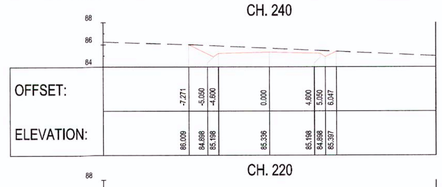

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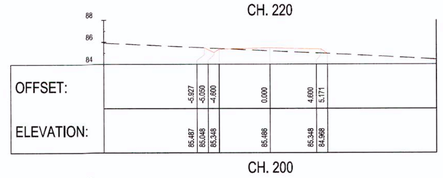

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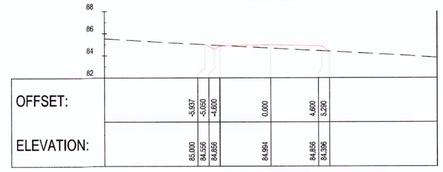

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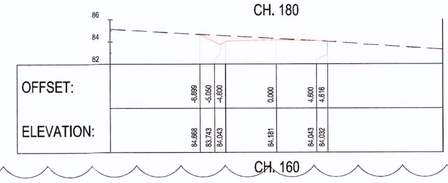

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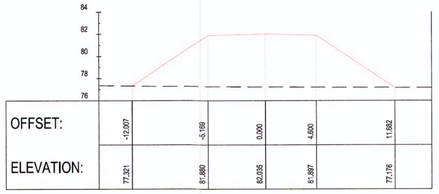

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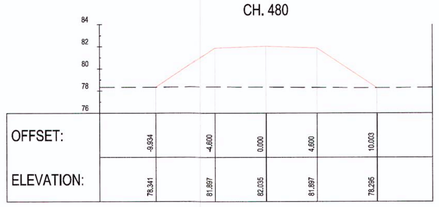

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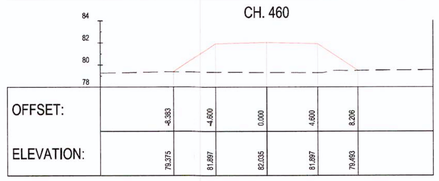

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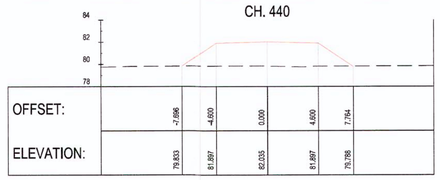

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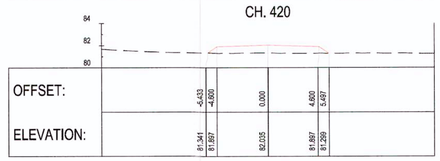

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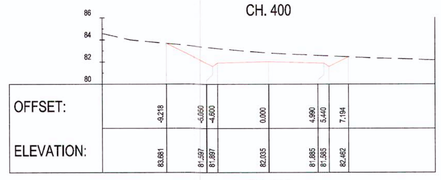

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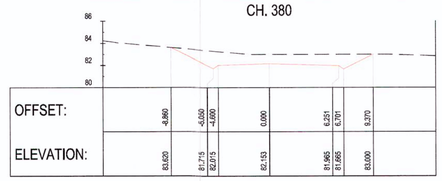

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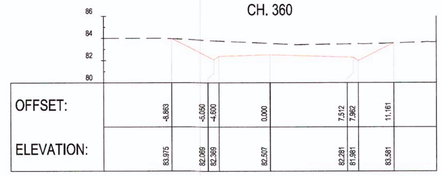

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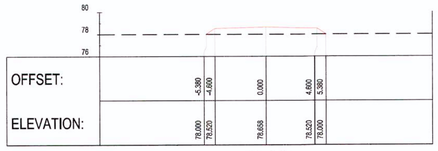

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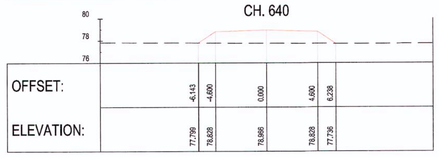

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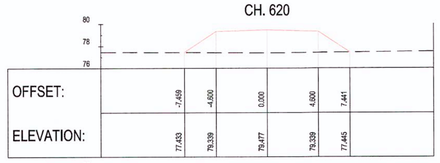

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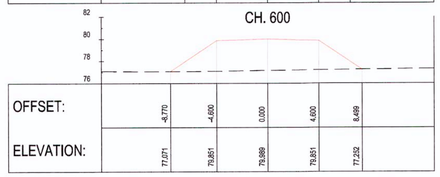

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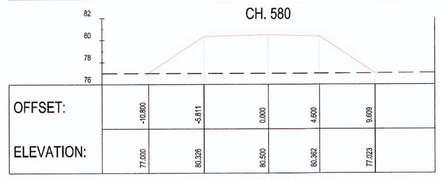

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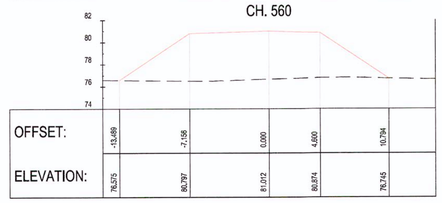

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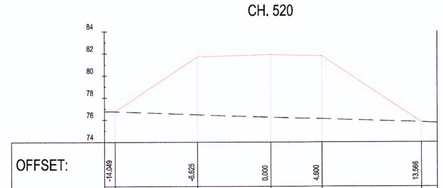

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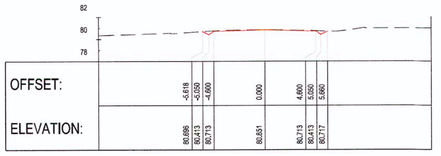

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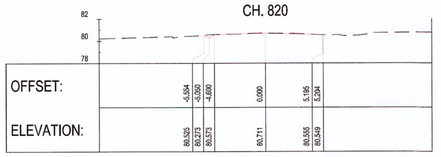

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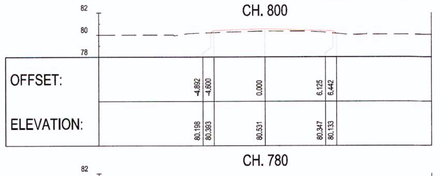

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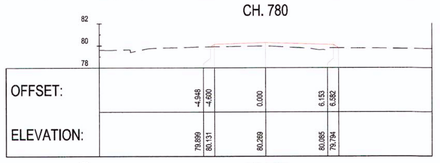

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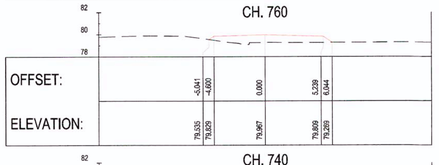

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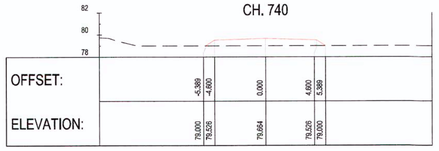

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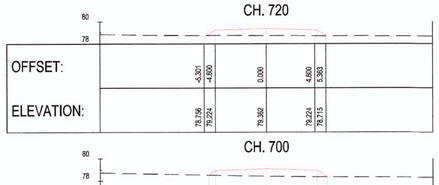

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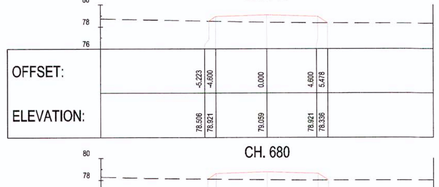

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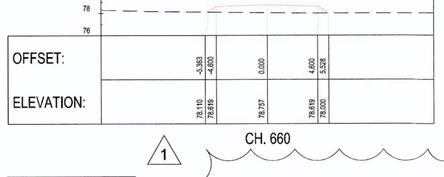


CH. 660

1

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018-11-17
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0034	LAYOUT AND LONGITUDINAL SECTION GRADE CROSSING AT CH. 12+530
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REGISTERED PROFESSIONAL ENGINEER D. STANGER LICENSEE NT/NU 2018-11-17

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

THIS DRAWING WAS PREPARED BY HATCH LTD. SOLELY FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP ("CLIENT") AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE THE CLIENT, INCLUDING ANY LIMITATIONS ON LIABILITY CONTAINED THEREIN. THIS DRAWING AND ITS CONTENTS REMAIN THE INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLIENT'S ROYALTY-FREE, IRREVOCABLE, PERPETUAL AND NON-EXCLUSIVE LICENSE TO USE AND REPRODUCE THE DRAWING FOR THE PROJECT. INCLUDING ANY CONSTRUCTION, COMPLETION, OPERATION, MAINTENANCE, REPAIR, EXTENSION, REINSTATEMENT AND REPAIR OF THE PROJECT. THE DRAWING AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
1	ROAD CROSS SECTIONS ALTERED TO SUITE NEW RAIL ALIGNMENT.	AJVN		2018/11/12
0	APPROVED FOR CONSTRUCTION	AJVN		2018/04/07

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2017/02/19
DESIGNER	A VAN NIEKERK	NR	2017/02/19
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENGINEER	D STANGER		2018/11/14
LEAD DISC. ENG.	F VAN BILJON	van Biljon, Fanus	
AREA LEAD	F VAN BILJON	van Biljon, Fanus	
ENG. MANAGER	D STANGER		2018/11/14
AREA MANAGER	F PITTMAN		2018-11-16

DRAWING APPROVAL STATUS: Approved for Construction

Baffinland

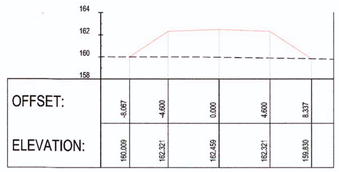
BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

TOTE ROAD
GRADE CROSSING (RAIL CH. 12+500)
CROSS SECTIONS CH. 0 TO 0+820

SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0022-0001	1

SHEET SIZE: A0

DWG. No. H353004-30000-224-273-0023-0001



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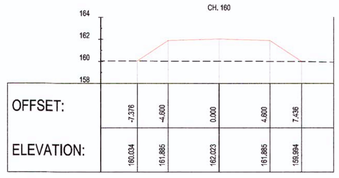

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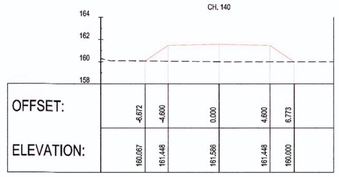

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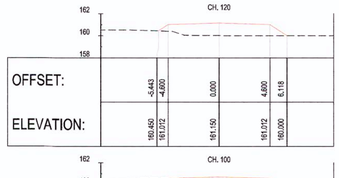

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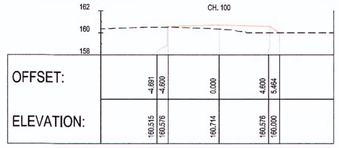

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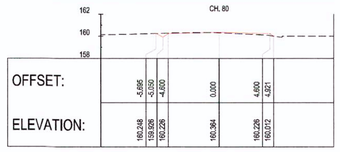

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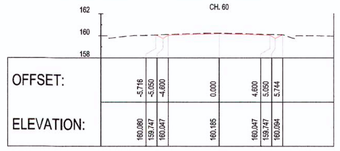

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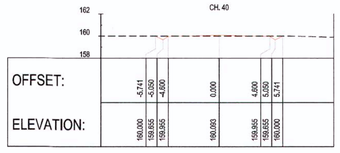

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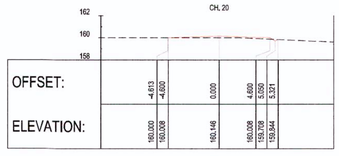

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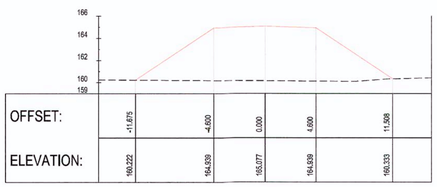

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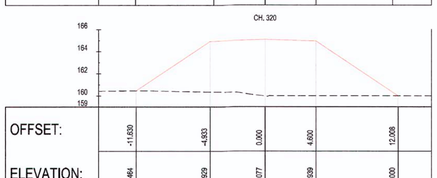

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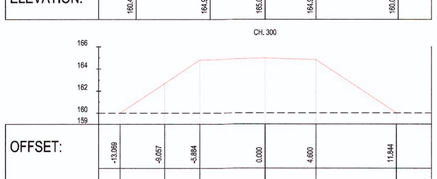

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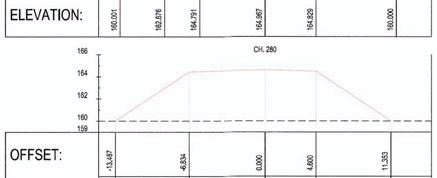

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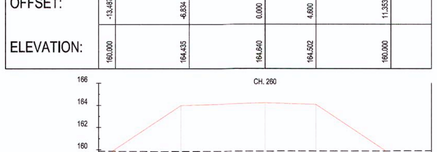

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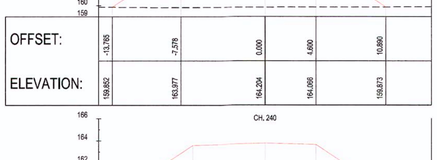

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CH. 200

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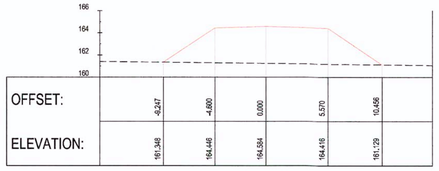

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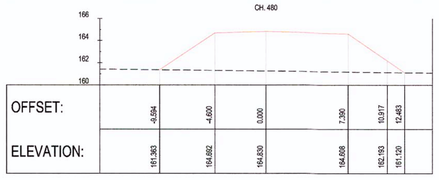

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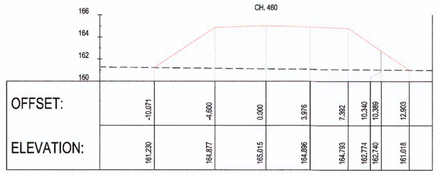

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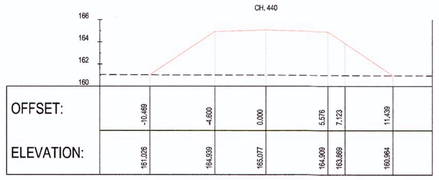

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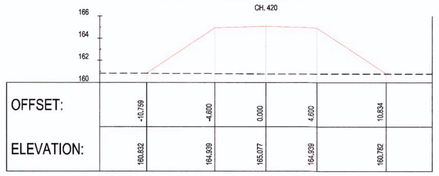

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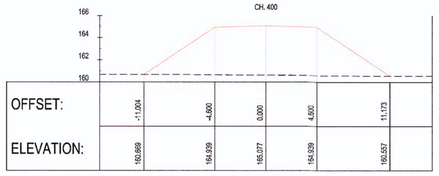

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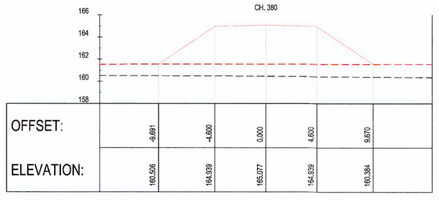

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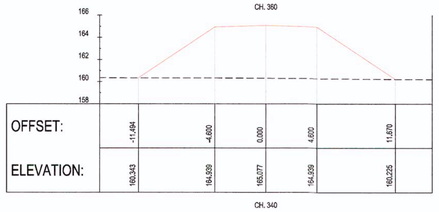

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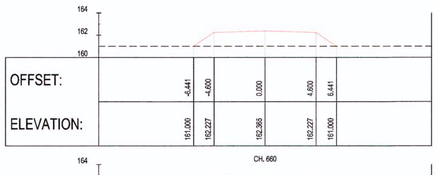

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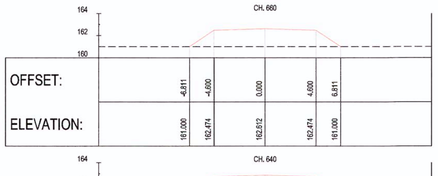

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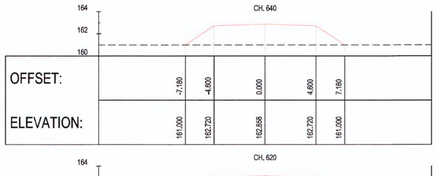

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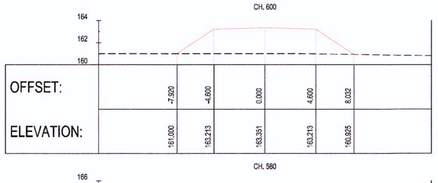

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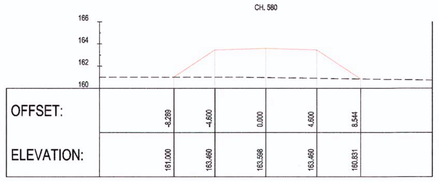

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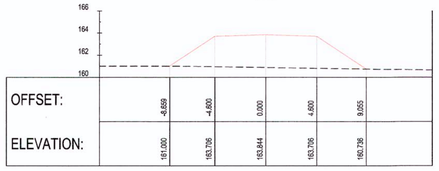

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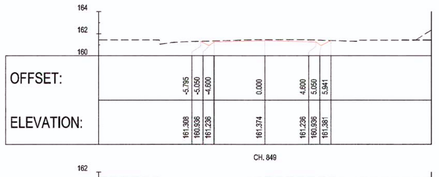
CH. 520

CH. 500



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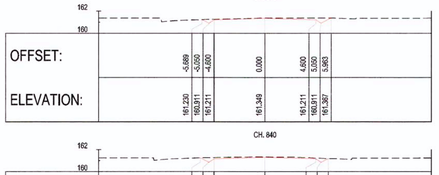

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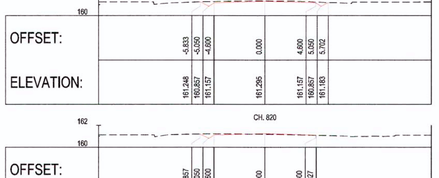

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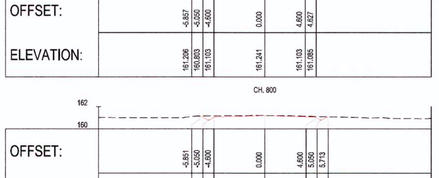

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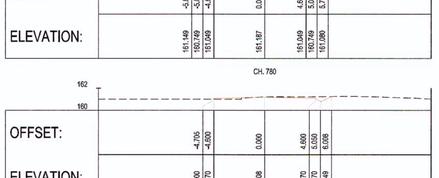

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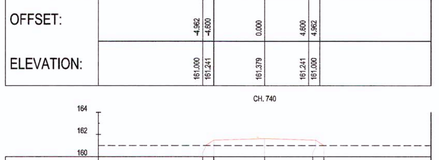

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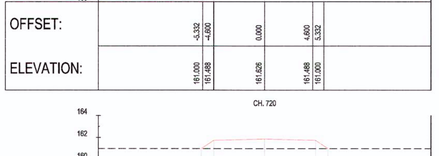

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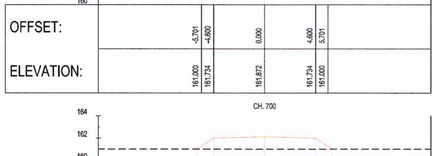

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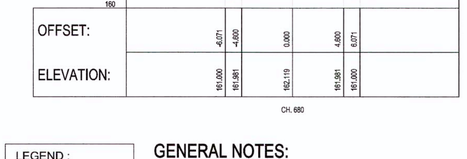

CH. 680

LEGEND :
FORMATION
NGL

GENERAL NOTES:

1. THIS DRAWING WAS PREVIOUSLY ISSUED AS : H353004-00000-224-260-0019-0001

PERMIT TO PRACTICE HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0035	LAYOUT AND LONGITUDINAL SECTION GRADE CROSSING AT CH. 55+445
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
1	CROSS SECTIONS ALTERED TO SUIT NEW ROAD ALIGNMENT			2018/11/19
0	APPROVED FOR CONSTRUCTION	AJVN		2018/10/16

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2018/02/10
DESIGNER	A VAN NIEKERK	NR	2018/02/10
CHECKER	F VAN BILJON	van Biljon, Fanus	2018-11-19
DESIGN COORD.	F VAN BILJON	van Biljon, Fanus	2018-11-19
RESP. ENG.	D STANGER		2018-11-19
LEAD DISC. ENG.	F VAN BILJON	van Biljon, Fanus	2018-11-19
AREA LEAD	F VAN BILJON	van Biljon, Fanus	2018-11-19
ENG. MANAGER	D STANGER		2018-11-19
AREA MANAGER	F PITTMAN		2018-11-30

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

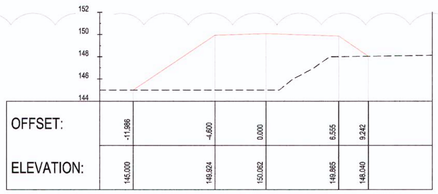
Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

TOTE ROAD
GRADE CROSSING (CH. 55+243)
CROSS SECTIONS CH. 0 TO CH. 0+849

SCALE 1:200 OR AS NOTED
DWG. No. H353004-30000-224-273-0023-0001
REV 1
SHEET SIZE: A0

DWG. No. H353004-30000-224-273-0024



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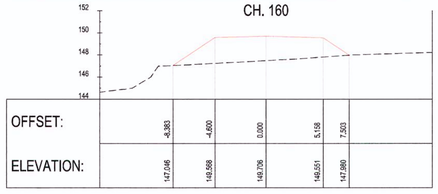

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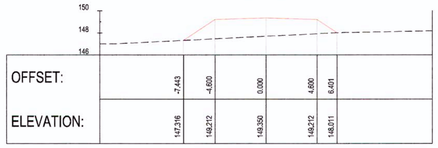

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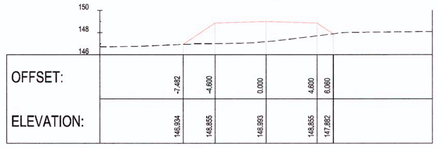

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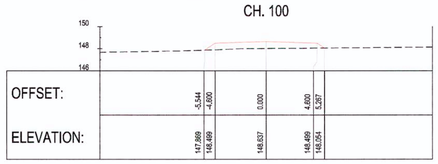

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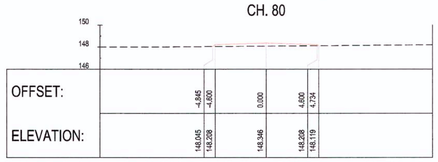

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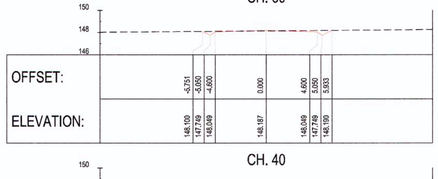

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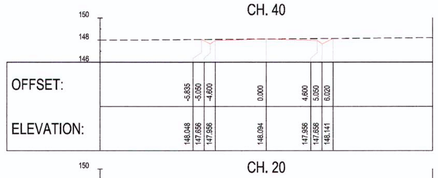

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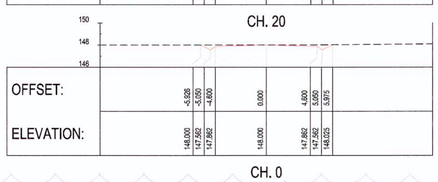

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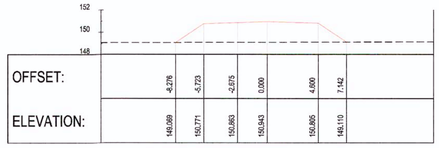

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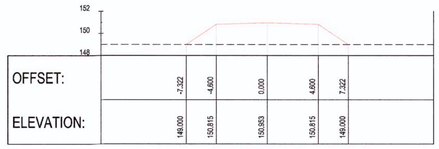

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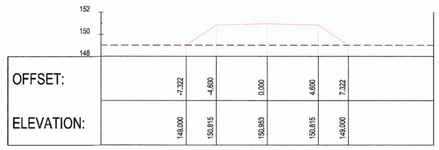

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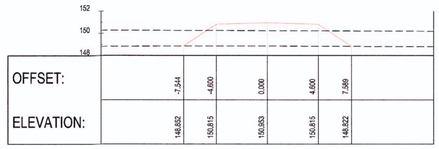

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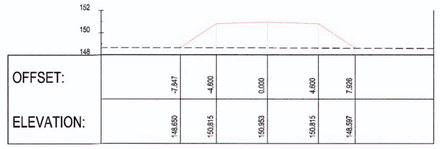

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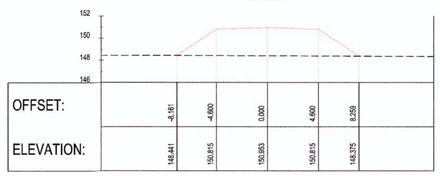

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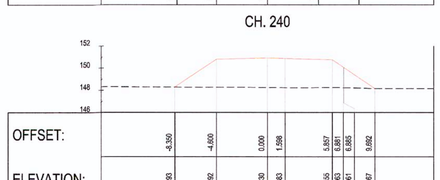

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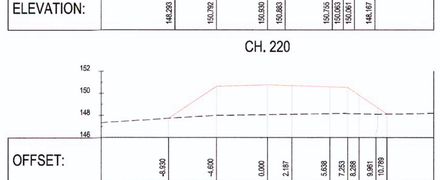

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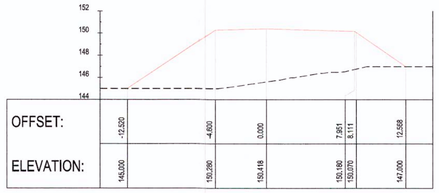

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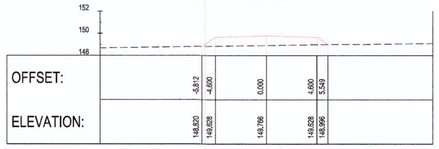

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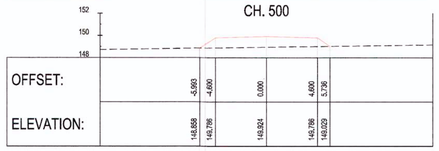

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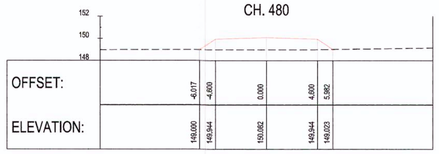

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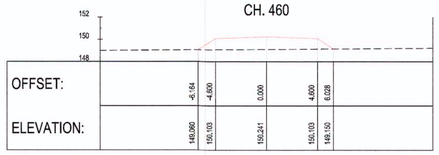

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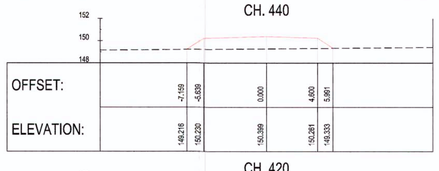

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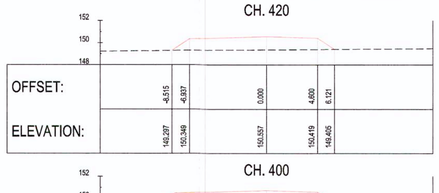

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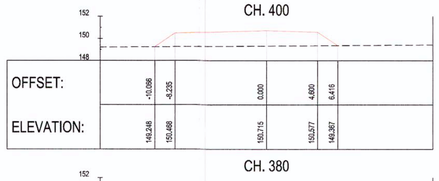

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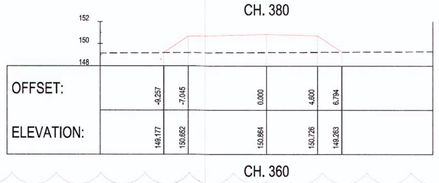

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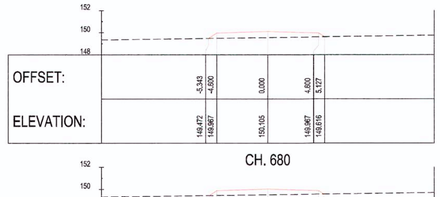

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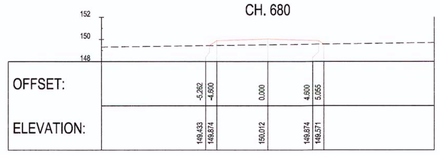

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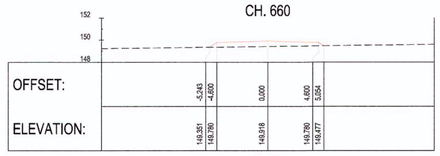

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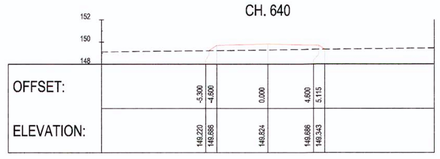

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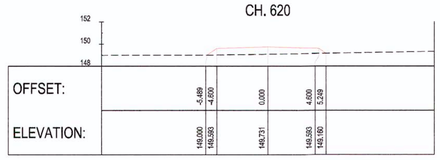

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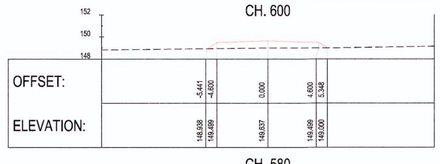

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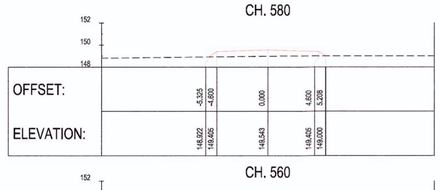

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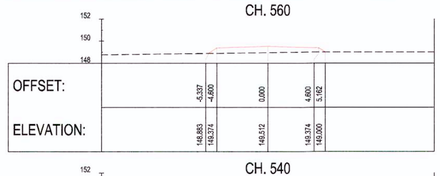

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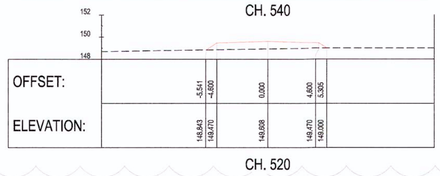

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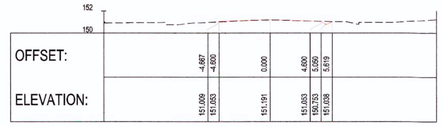

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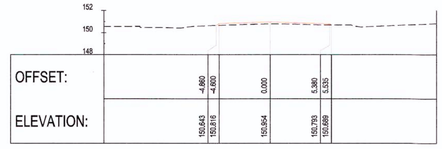

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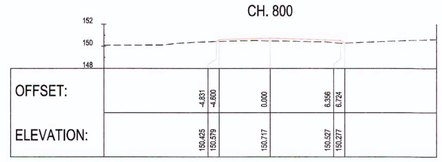

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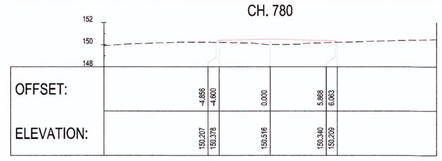

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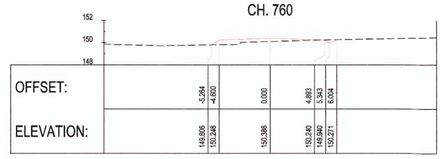

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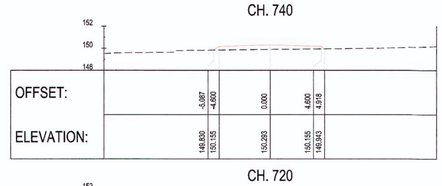

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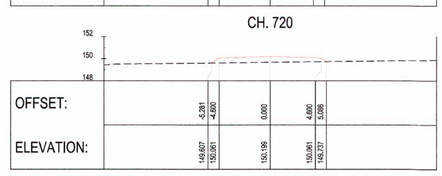


CH. 700

1

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018-11-17
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0036	LAYOUT AND LONGITUDINAL SECTION GRADE CROSSING AT CH. 87+345
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

THIS DRAWING WAS PREPARED BY HATCH LTD. (HATCH) FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP (CLIENT) AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE CLIENT, INCLUDING ANY LIMITATIONS ON LIABILITY CONTAINED THEREIN. THIS DRAWING AND ITS CONTENTS REMAIN THE PROPERTY OF HATCH AND SHALL BE RETURNED TO HATCH UPON REQUEST. NEITHER THE CLIENT NOR ANY THIRD PARTY IS ENTITLED TO USE AND REPRODUCE THE DRAWING FOR PURPOSES CONNECTED WITH THE PROJECT, INCLUDING THE CONSTRUCTION, COMPLETION, MAINTENANCE, EXTENSION, REINSTATEMENT AND REPAIR OF THE PROJECT. THIS DRAWING AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
1	ROAD CROSS SECTIONS ALTERED TO SUIT NEW RAIL ALIGNMENT.	AJVN		2018/11/13
0	APPROVED FOR CONSTRUCTION	AJVN		2018/04/07

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2018/02/22
DESIGNER	A VAN NIEKERK	NR	2018/02/22
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENG.	D STANGER		2018-11-14
LEAD DISC. ENG.	F VAN BILJON	Ivan Biljon, Fanus	2018-11-14
AREA LEAD	F VAN BILJON	Ivan Biljon, Fanus	2018-11-14
ENG. MANAGER	D STANGER		2018-11-14
AREA MANAGER	F PITTMAN		2018-11-16

DRAWING APPROVAL STATUS: Approved for Construction

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

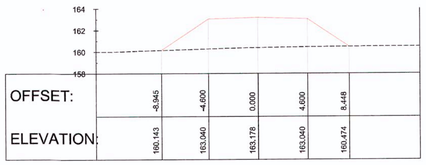
TOTE ROAD
GRADE CROSSING (RAIL 87.044km)
CROSS SECTIONS CH. 0.000m TO 820.000m

SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0024	1

SHEET SIZE: A0

USER NAMES: STANGER

DWG. No. H353004-30000-224-273-0025-0001



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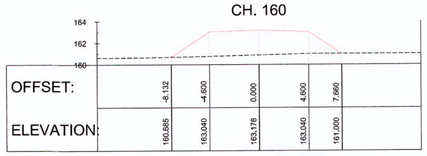

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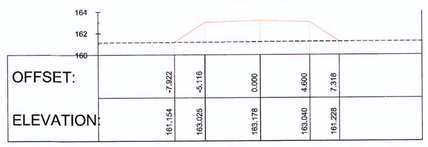

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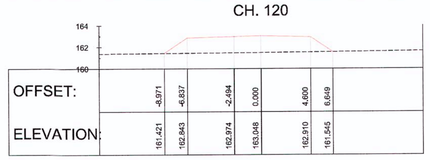

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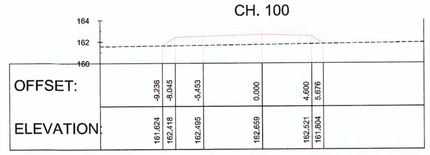

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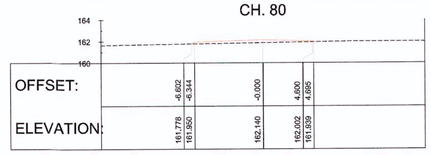

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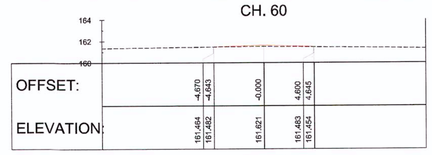

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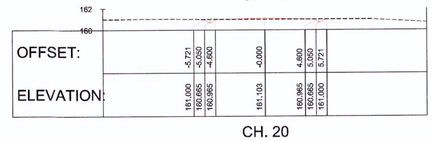

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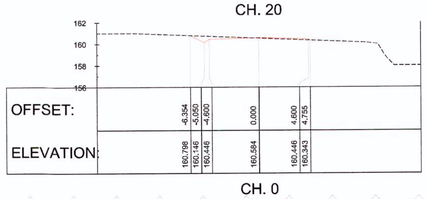

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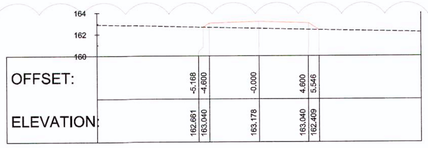

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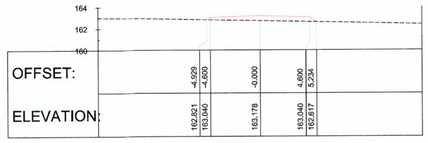

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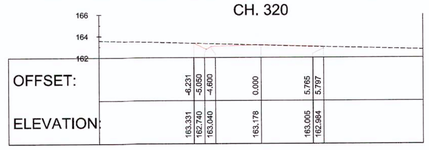

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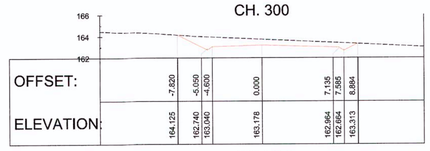

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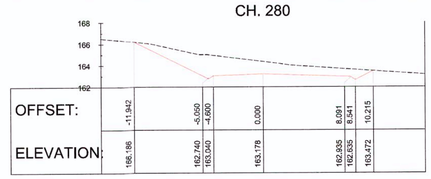

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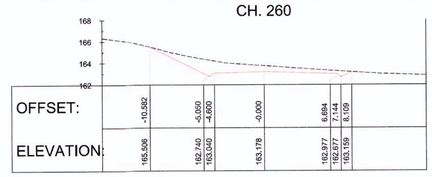

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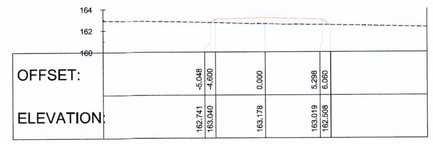

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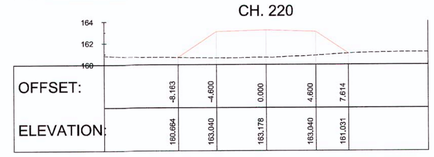

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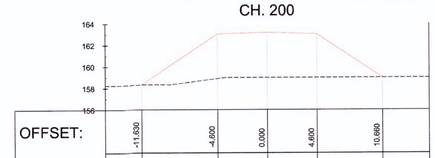

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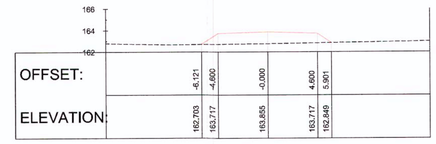

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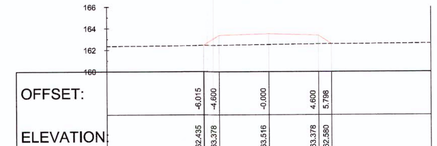

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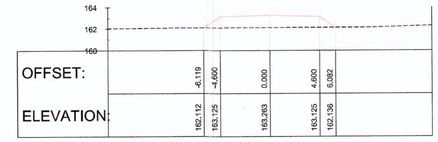
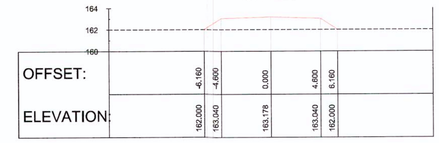
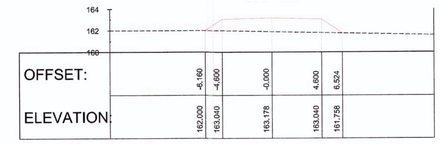


CH. 480



CH. 460



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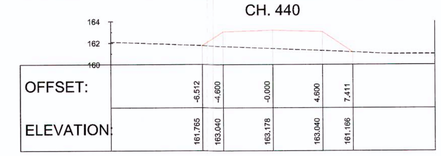

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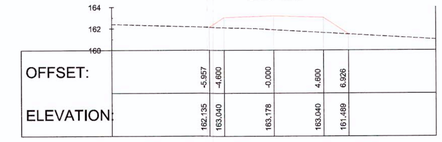

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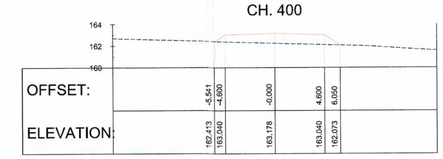

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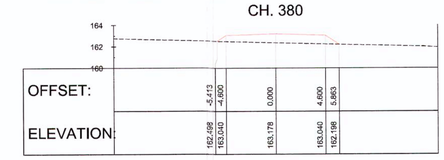

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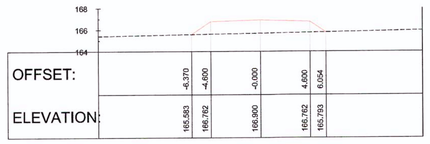

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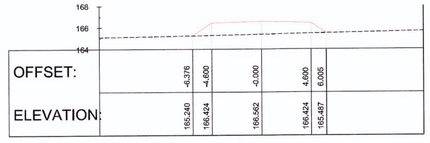

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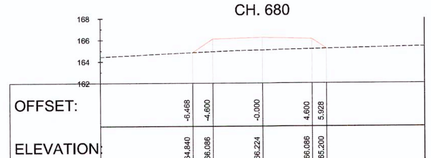

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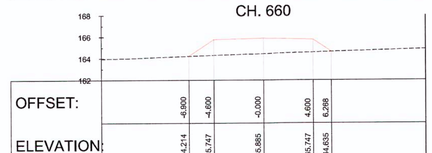

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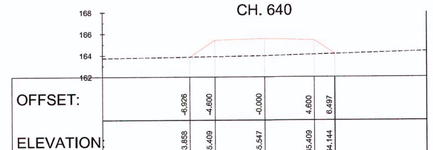

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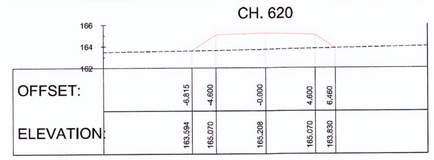
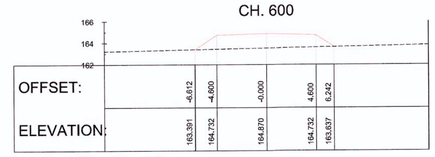


CH. 600



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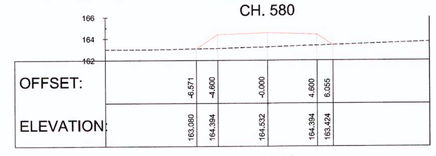

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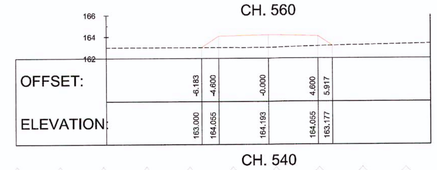

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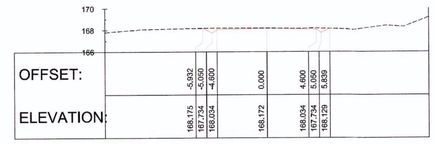

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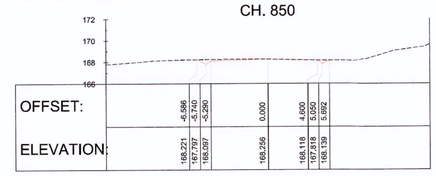

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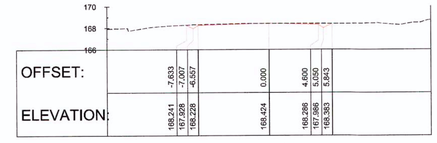
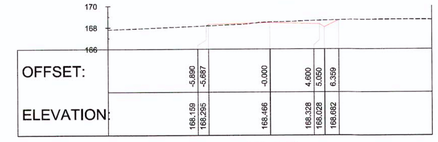


CH. 820



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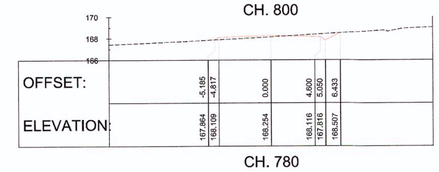

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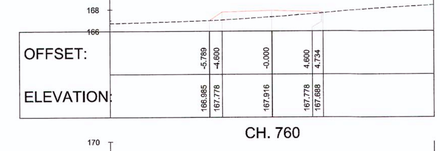
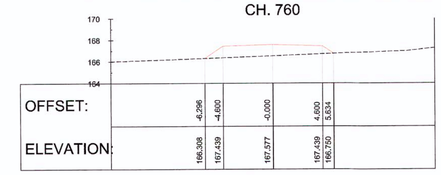


CH. 760



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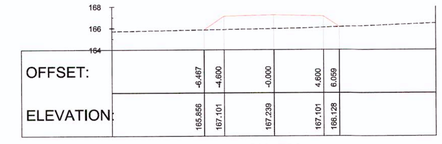

CH. 720

1

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018-11-17
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0037	LAYOUT AND LONGITUDINAL SECTION GRADE CROSSING AT CH. 87+345
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NORTHWEST TERRITORIES PROFESSIONAL ENGINEER D. STANGER LICENSE 2018-11-17 NT/NU

REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
1	ROAD CROSS SECTIONS ALTERED TO SUIT NEW RAIL ALIGNMENT.			
0	APPROVED FOR CONSTRUCTION	AJVN		2018/04/07

REVISIONS

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2018/02/27
DESIGNER	A VAN NIEKERK	NR	2018/02/27
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENG.	D STANGER		
LEAD DISC. ENG.	F VAN BILJON	van Biljon, Fanus	
AREA LEAD	F VAN BILJON	van Biljon, Fanus	
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMANN		2018-11-16

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

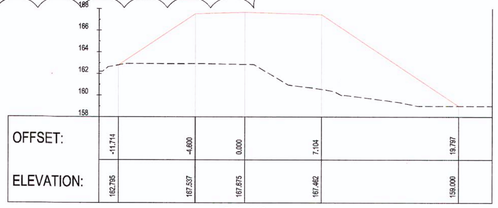
TOTE ROAD
GRADE CROSSING (CH. 91+381)
CROSS SECTIONS CH. 0 TO CH. 0+850

SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0025-0001	1

SHEET SIZE: A0

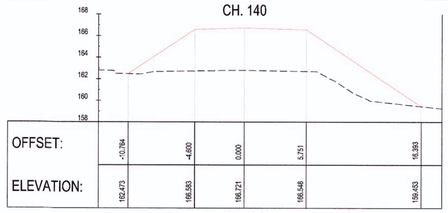
$USERNAME
$TIME
$FILES
$FILES

DWG. No. H353004-30000-224-273-0026-0001



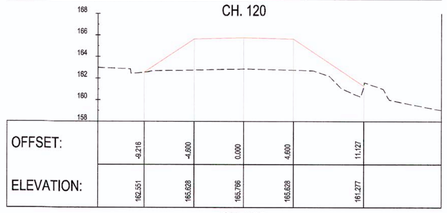
OFFSET:	-11.714	-4.600	0.000	7.104	19.767
ELEVATION:	162.795	167.537	167.675	167.462	159.000

CH. 140



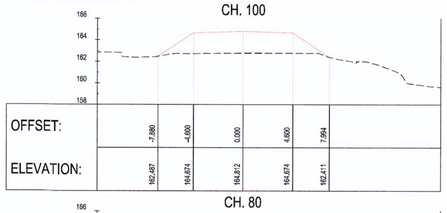
OFFSET:	-10.784	-4.600	0.000	5.751	16.393
ELEVATION:	162.473	166.583	166.721	166.548	159.453

CH. 120



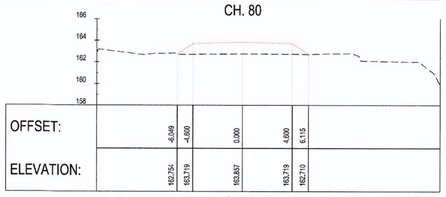
OFFSET:	-9.216	-4.600	0.000	4.600	11.127
ELEVATION:	162.551	166.628	166.766	166.628	161.277

CH. 100



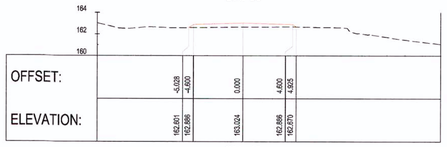
OFFSET:	-7.880	-4.600	0.000	4.600	7.984
ELEVATION:	162.487	164.674	164.812	164.674	162.411

CH. 80



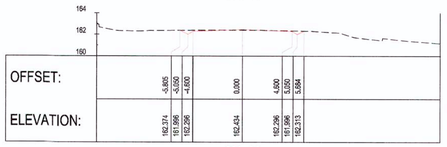
OFFSET:	-6.049	-4.600	0.000	4.600	6.115
ELEVATION:	162.754	163.719	163.857	163.719	162.710

CH. 60



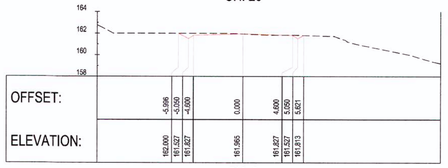
OFFSET:	-5.028	-4.600	0.000	4.600	4.924
ELEVATION:	162.851	162.886	163.024	162.886	162.870

CH. 40



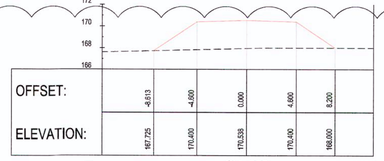
OFFSET:	-5.895	-3.050	-4.600	0.000	4.600	5.050	5.884
ELEVATION:	162.374	161.996	162.296	162.434	162.296	161.996	162.313

CH. 20



OFFSET:	-5.996	-3.050	-4.600	0.000	4.600	5.050	5.871
ELEVATION:	162.000	161.627	161.627	161.965	161.627	161.627	161.813

CH. 0

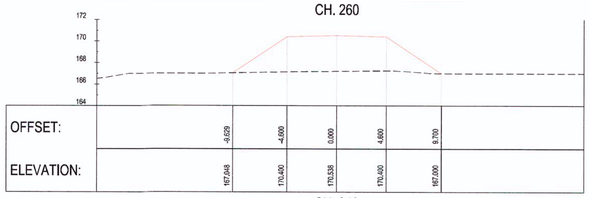


OFFSET:	-8.613	-4.600	0.000	4.600	8.200
ELEVATION:	167.725	170.400	170.538	170.400	168.000

CH. 280

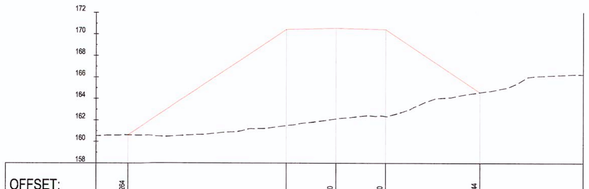
OFFSET:	-9.049	-4.600	0.000	4.600	8.672
ELEVATION:	167.434	170.400	170.538	170.400	167.792

CH. 260



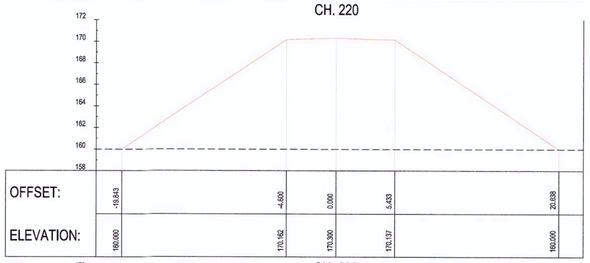
OFFSET:	-9.629	-4.600	0.000	4.600	9.700
ELEVATION:	167.848	170.400	170.538	170.400	167.000

CH. 240



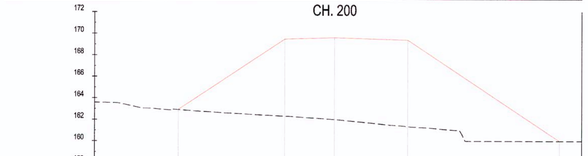
OFFSET:	-10.264			0.000	4.600	13.344
ELEVATION:	160.625		170.400	170.538	170.400	164.271

CH. 220



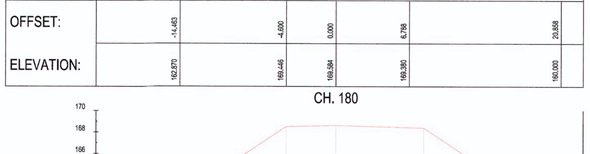
OFFSET:	-10.843		-4.600	0.000	5.433	20.836
ELEVATION:	160.000		170.162	170.300	170.137	160.000

CH. 200



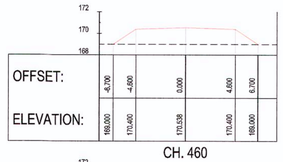
OFFSET:	-14.483		-4.600	0.000	6.798	20.858
ELEVATION:	162.870		169.446	169.584	169.360	160.000

CH. 180



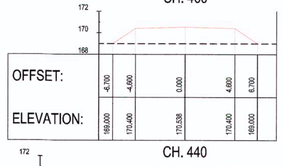
OFFSET:	-12.553		-4.600	0.000	6.142	21.767
ELEVATION:	163.323		168.491	168.629	168.365	159.302

CH. 160



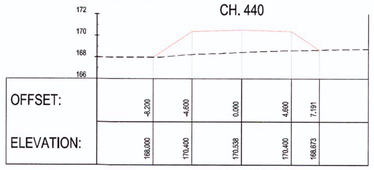
OFFSET:	-8.706	-4.600	0.000	4.600	8.700
ELEVATION:	168.000	170.400	170.538	170.400	168.000

CH. 460



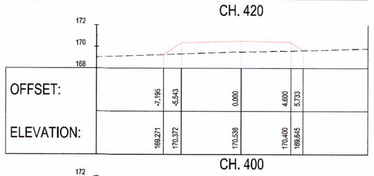
OFFSET:	-8.700	-4.600	0.000	4.600	8.700
ELEVATION:	168.000	170.400	170.538	170.400	168.000

CH. 440



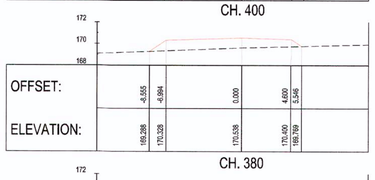
OFFSET:	-8.200	-4.600	0.000	4.600	7.191
ELEVATION:	168.000	170.400	170.538	170.400	168.673

CH. 420



OFFSET:	-7.195	-5.543		0.000	4.600	5.733
ELEVATION:	169.271	170.372		170.538	170.400	169.645

CH. 400

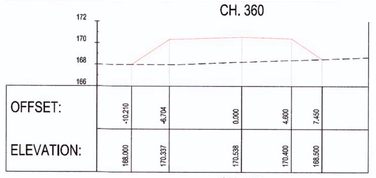


OFFSET:	-8.555	-8.984		0.000	4.600	5.546
ELEVATION:	169.288	170.328		170.538	170.400	169.769

CH. 380

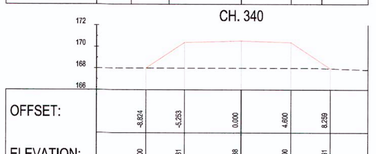
OFFSET:	-10.024	-8.155		0.000	4.600	6.387
ELEVATION:	169.048	170.204		170.538	170.400	169.209

CH. 360



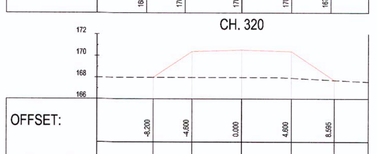
OFFSET:	-10.276	-8.704		0.000	4.600	7.450
ELEVATION:	169.000	170.337		170.538	170.400	169.500

CH. 340



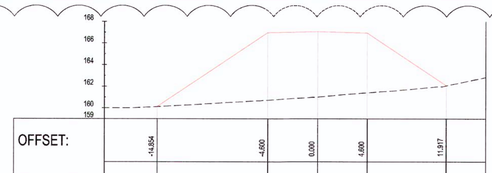
OFFSET:	-8.824	-5.353		0.000	4.600	8.259
ELEVATION:	169.000	170.381		170.538	170.400	167.861

CH. 320



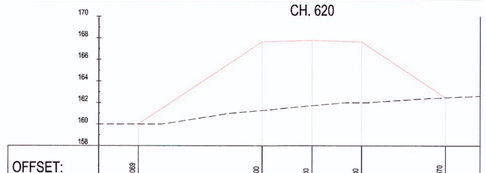
OFFSET:	-8.200	-4.600	0.000	4.600	8.595
ELEVATION:	169.000	170.400	170.538	170.400	167.737

CH. 300



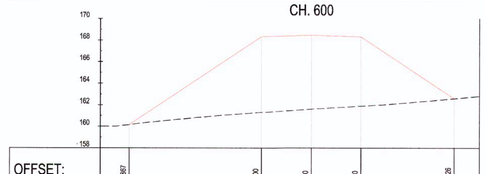
OFFSET:	-14.854	-4.600	0.000	4.600	11.917
ELEVATION:	160.121	166.567	167.069	166.567	162.079

CH. 620



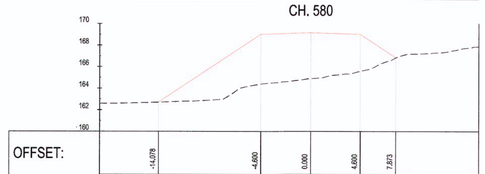
OFFSET:	-16.069	-4.600	0.000	4.600	12.370
ELEVATION:	160.000	167.646	167.784	167.646	162.466

CH. 600



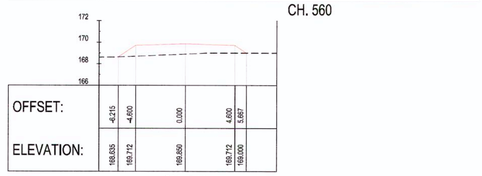
OFFSET:	-15.897	-4.600	0.000	4.600	13.226
ELEVATION:	160.157	168.334	168.472	168.334	162.594

CH. 580



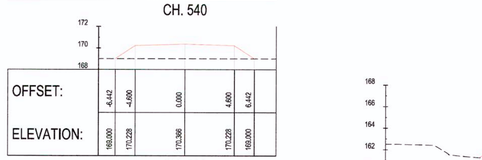
OFFSET:	-14.078	-4.600	0.000	4.600	7.873
ELEVATION:	162.704	169.023	169.161	169.023	166.841

CH. 560



OFFSET:	-9.215	-4.600	0.000	4.600	5.667
ELEVATION:	166.835	169.712	169.850	169.712	169.000

CH. 540

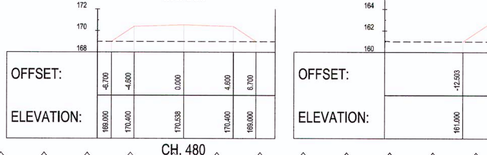


OFFSET:	-8.442	-4.600	0.000	4.600	6.442
ELEVATION:	169.000	170.228	170.366	170.228	169.000

CH. 520

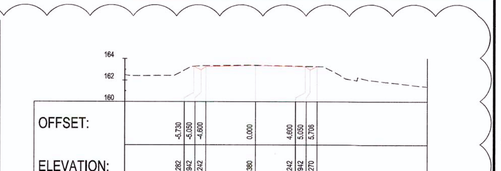
OFFSET:	-8.700	-4.600	0.000	4.600	8.700
ELEVATION:	169.000	170.400	170.538	170.400	169.000

CH. 500



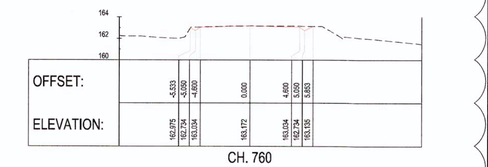
OFFSET:	-8.700	-4.600	0.000	4.600	8.700
ELEVATION:	169.000	170.400	170.538	170.400	169.000

CH. 480



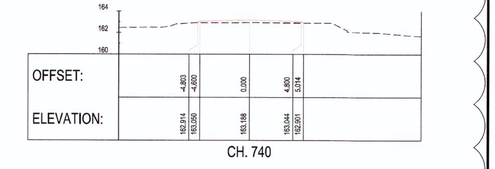
OFFSET:	-3.750	-3.050	-4.600	0.000	4.600	5.050	5.708
ELEVATION:	163.392	163.242	163.242	163.380	163.242	163.242	163.379

CH. 780



OFFSET:	-3.533	-3.050	-4.600	0.000	4.600	5.050	3.883
ELEVATION:	162.975	162.754	163.034	163.172	163.034	162.754	163.155

CH. 760

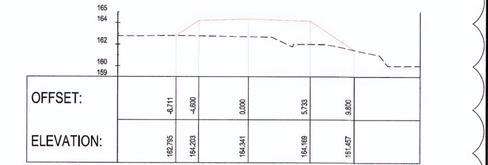


OFFSET:	-4.803	-4.600	0.000	4.800	5.014
ELEVATION:	162.914	163.500	163.188	163.034	162.901

CH. 740

OFFSET:	-5.165	-4.600	0.000	6.133	7.725
ELEVATION:	162.736	163.314	163.652	163.466	162.467

CH. 720



OFFSET:	-5.711	-4.600	0.000	5.733	9.600
ELEVATION:	162.765	164.203	164.341	164.169	161.457

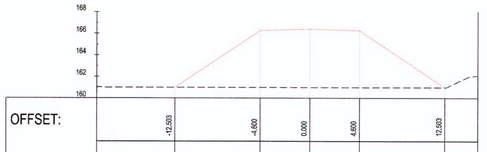
CH. 700

OFFSET:	-9.087	-4.600	0.000	4.600	11.909
ELEVATION:	162.580	164.891	165.029	164.891	160.019

CH. 680

OFFSET:	-11.052	-4.600	0.000	4.600	12.042
ELEVATION:	161.278	165.580	165.718	165.580	160.618

CH. 660



OFFSET:	-12.503	-4.600	0.000	4.600	12.503
ELEVATION:	161.000	166.299	166.407	166.299	161.000

CH. 640

1

GENERAL NOTES:

1. THIS DRAWING WAS PREVIOUSLY ISSUED AS H353004-00000-224-260-0020-0001

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date Nov 19th, 2018
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0036	GRADE CROSSING AT 96.585km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REG. PROFESSIONAL ENGINEER D. STANGER LICENSE NT/NU

APPROVED FOR CONSTRUCTION

THIS DRAWING WAS PREPARED BY HATCH LTD. (HATCH) FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP (CLIENT) AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE CLIENT. ANY USE OF THIS DRAWING BY ANY THIRD PARTY IS AT THAT PARTY'S SOLE RISK. THE COPYRIGHT AND ALL OTHER INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLIENT'S ROYALTY-FREE, IRREVOCABLE, PERPETUAL AND NON-EXCLUSIVE LICENSE TO USE AND REPRODUCE THE DRAWING FOR PURPOSES CONNECTED WITH THE PROJECT, INCLUDING THE CONSTRUCTION, COMPLETION, MAINTENANCE, EXTENSION, REINSTATEMENT AND REPAIR OF THE PROJECT. THIS DRAWING, AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
1	ROAD CROSS SECTIONS ALTERED TO SUIT CHANGED RAIL ALIGNMENT.	AJVN		2018/11/15
0	APPROVED FOR CONSTRUCTION	AJVN		2017/02/13

REVISIONS

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2017/02/13
DESIGNER	A VAN NIEKERK	NR	2017/02/13
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENG.	D STANGER		
LEAD DISC. ENG.	F VAN BILJON	Ivan Biljon, Fanus	
AREA LEAD	F VAN BILJON	Ivan Biljon, Fanus	
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN	Fanus Pittman	2018-11-30

DRAWING APPROVAL STATUS: Approved for Construction

HATCH

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

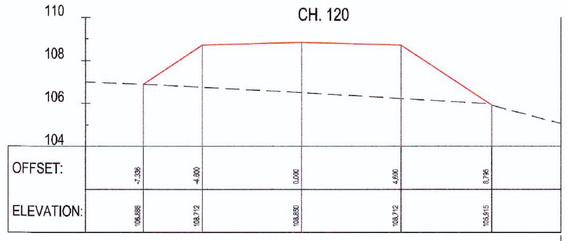
TOTE ROAD
GRADE CROSSING (RAIL CH 96.177km)
CROSS SECTIONS CH. 0.000m TO CH. 780.000m

SCALE	DWG. No.	REV
1:200 OR AS NOTED	H353004-30000-224-273-0026-0001	1

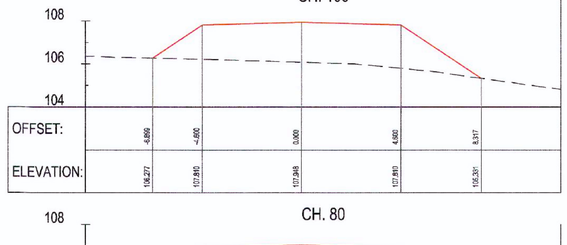
SHEET SIZE: A0

$USERNAME $TIMES
$USERNAME $TIMES
$FILES

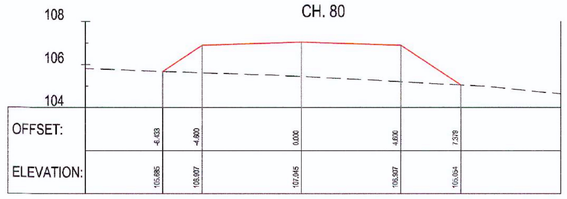
CH. 120



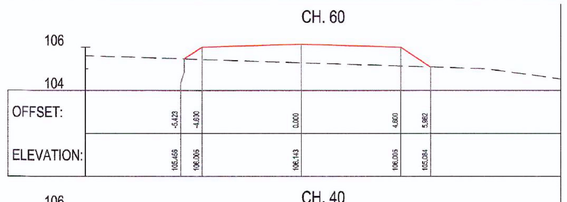
CH. 100



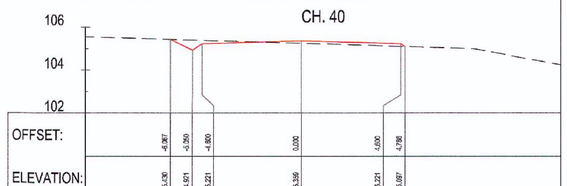
CH. 80



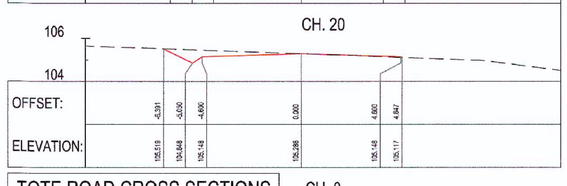
CH. 60



CH. 40

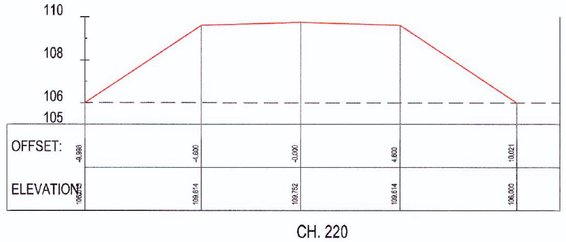


CH. 20

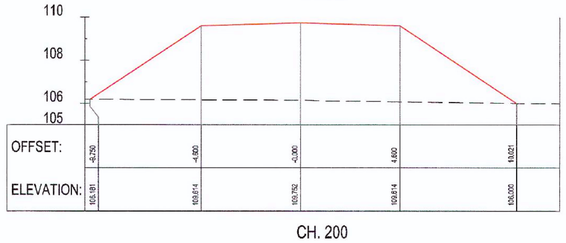


TOTE ROAD CROSS SECTIONS CH. 0

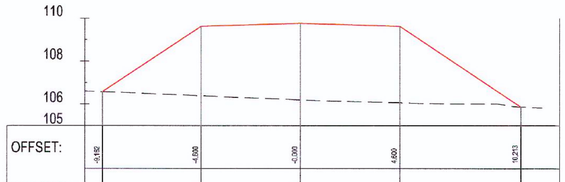
CH. 240



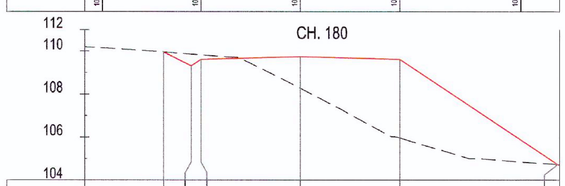
CH. 220



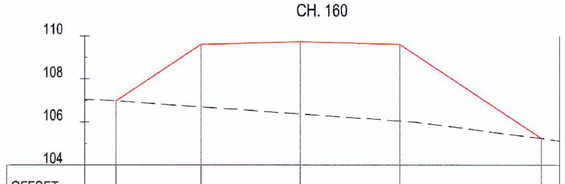
CH. 200



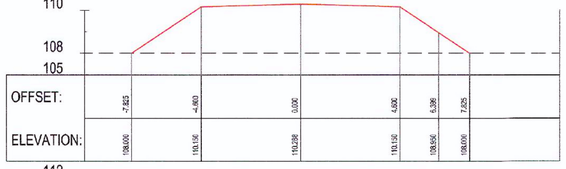
CH. 180



CH. 160



CH. 140



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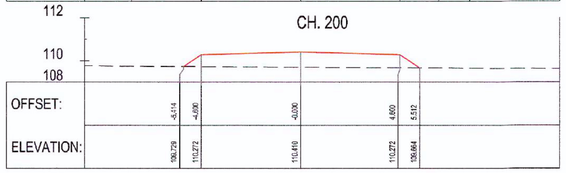
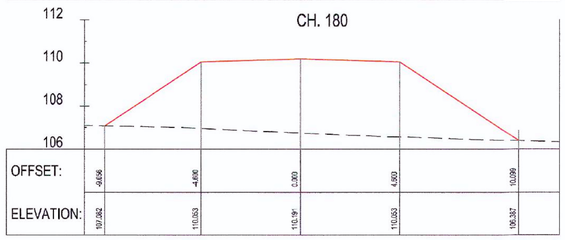
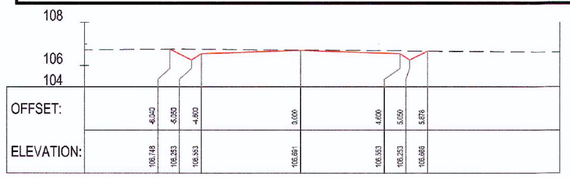


CH. 180

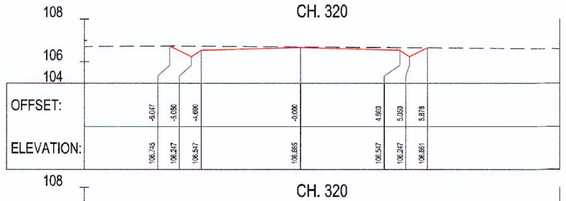


CH. 160

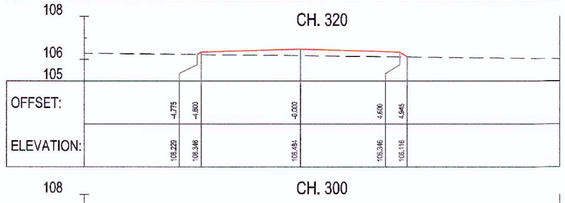
COMMS TOWER ACCESS ROAD



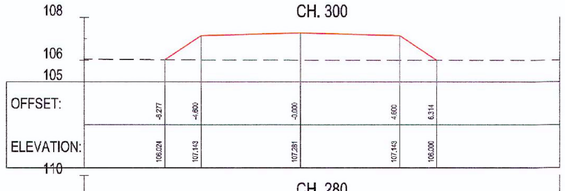
CH. 320



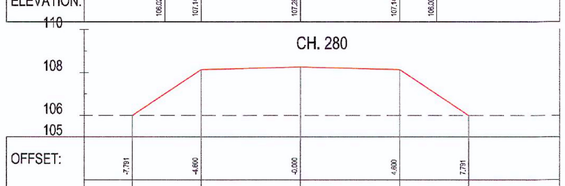
CH. 320



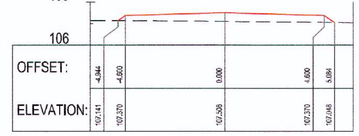
CH. 300

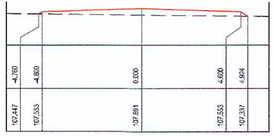


CH. 280

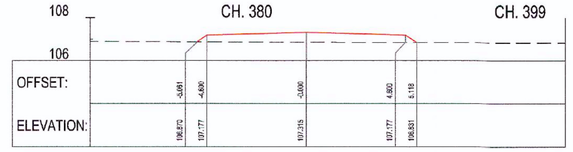


CH. 260

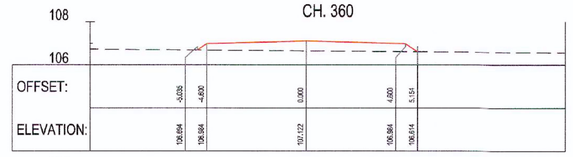




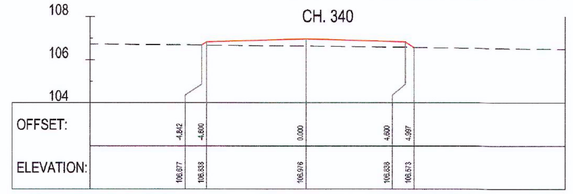
CH. 380 CH. 399



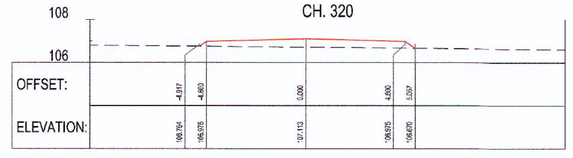
CH. 360



CH. 340



CH. 320



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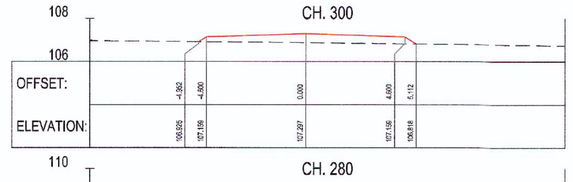
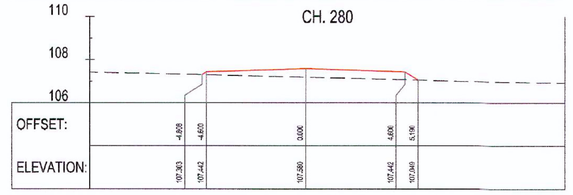
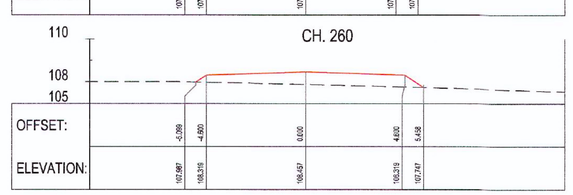


CH. 280



CH. 260



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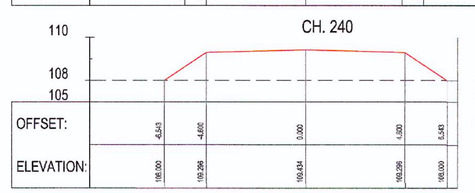

CH. 220

LEGEND :
ROAD FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 2018-09-06
PERMIT NUMBER P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0009	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-271-0029	GRADE CROSSING AT CH. 23+186 LAYOUT AND LONGITUDINAL SECTION
DRAWING No.	DRAWING TITLE
REFERENCE DRAWINGS	

REGISTERED PROFESSIONAL ENGINEER R. A. HALIM LICENSEE 2018-09-05 NWT/NU

REG. PROFESSIONAL

FOR CONSTRUCTION

THIS DRAWING WAS PREPARED BY HATCH LTD. ("HATCH") FOR THE BENEFIT OF THE BAFFINLAND IRON MINES LP ("CLIENT") AND IN FULFILLING ITS OBLIGATIONS UNDER THE CONTRACT BETWEEN HATCH AND THE CLIENT. ANY RELIANCE BY A PERSON OR LIABILITY DOWNWARD THEREIN, THIS DRAWING AND ITS CONTENTS REMAIN THE INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLAIMS TO ROYALTY, WHICH WOULD, PURPOSEFUL AND NON-EXCLUSIVE LICENSE TO USE AND REPRODUCE THE DRAWING FOR PURPOSES CONNECTED WITH THE PROJECT, INCLUDING THE CONSTRUCTION, COMPLETION, MAINTENANCE, OPERATION, PREVENTIVE AND REPAIR OF THE PROJECT. THIS DRAWING AND THE INFORMATION CONTAINED HEREIN SHALL REMAIN STRICTLY CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE DISCLOSED WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
0	APPROVED FOR CONSTRUCTION	AJVN	RA	2018/09/04

REVISIONS

HATCH

DRAFTSPERSON	A VAN NIEKERK	NR	2018-08-20
DESIGNER	A VAN NIEKERK	NR	2018-08-20
CHECKER	A AQUIL		09/05/2018
DESIGN COORD.	A AQUIL		09/05/2018
RESP. ENG.	R HALIM		2018-09-05
LEAD DISC. ENG.	F VAN BILJON		09/05/2018
AREA LEAD	F VAN BILJON		09/05/2018
ENG. MANAGER	D STANGER		2018-09-06
AREA MANAGER	F PITTMAN		2018-09-11
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER EXPANSION PROJECT

TOTE ROAD - COMMS TOWER ACCESS GRADE CROSSING AT CH. 23+186
CROSS SECTIONS

SCALE: 1:1,000 OR AS NOTED
DWG. No. H353004-30000-224-273-0027
REV 0
SHEET SIZE: A0

SUBSERVIENCES

DWG. No. H353004-30000-224-273-0031-0001

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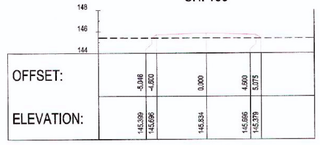

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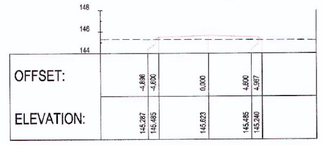

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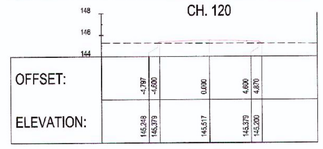

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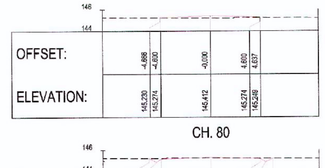

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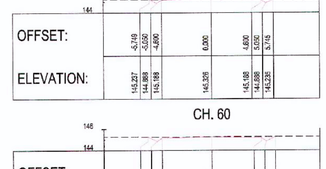

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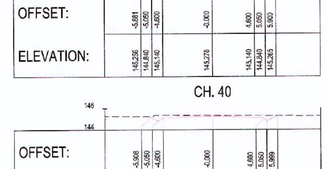

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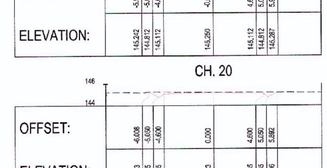

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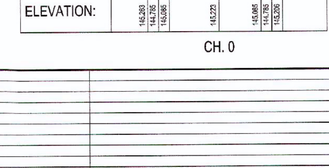

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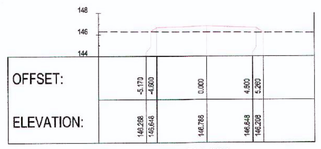

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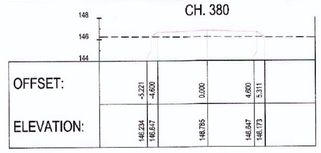

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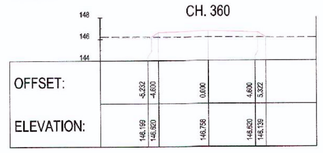

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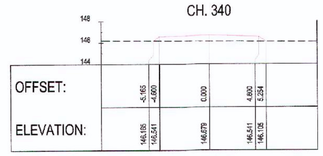

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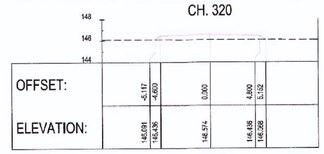

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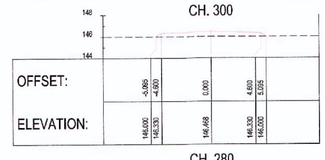

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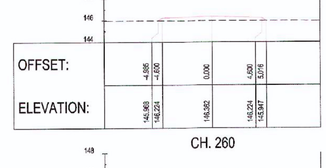

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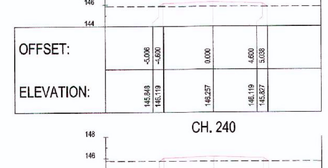

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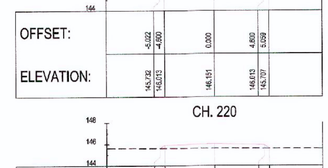

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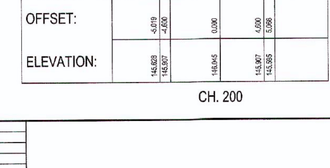

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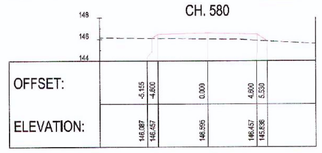

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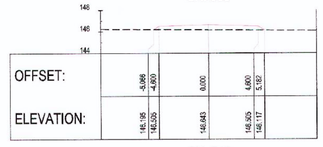

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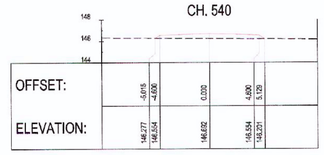

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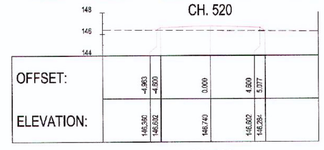

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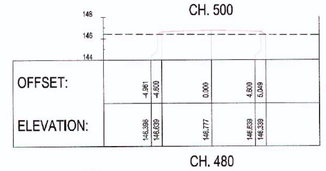

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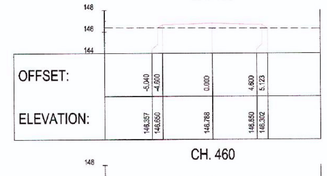

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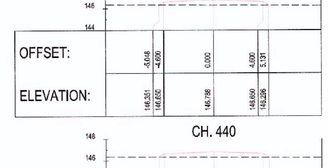

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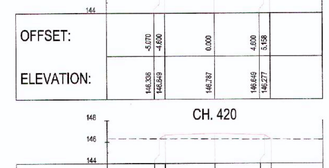

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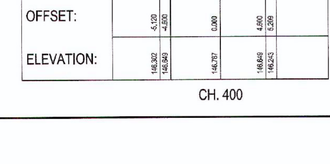

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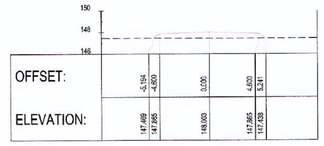

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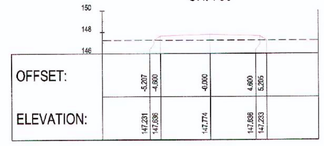

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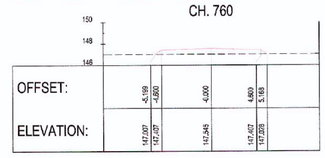

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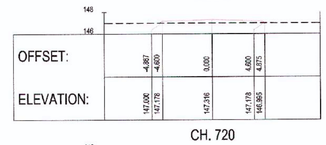

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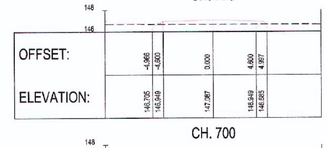

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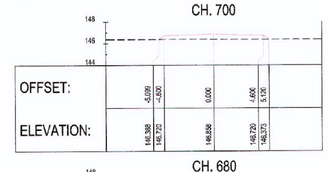

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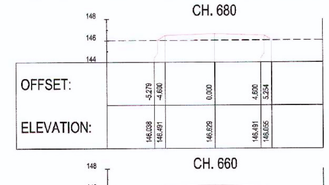

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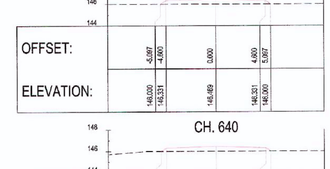

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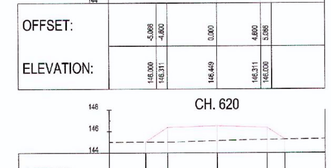

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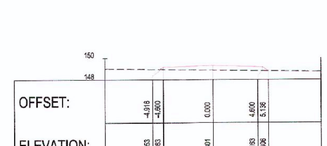

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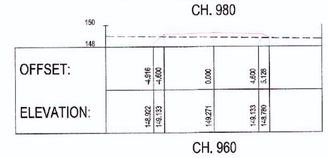

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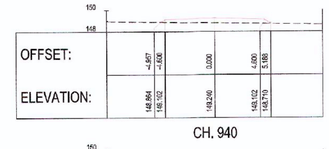

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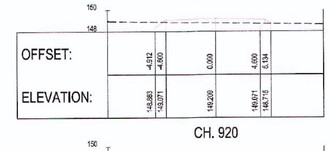

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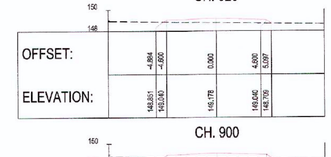

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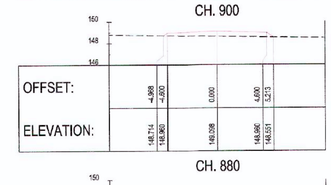

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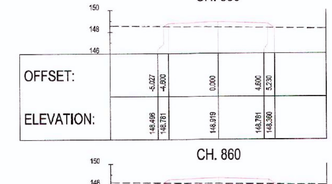

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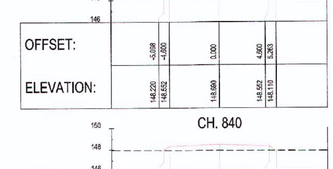

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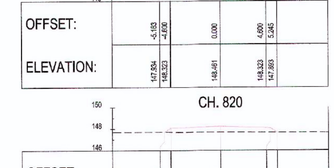

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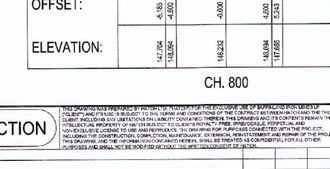

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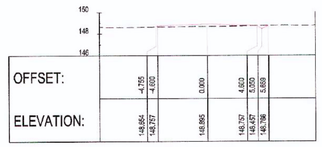

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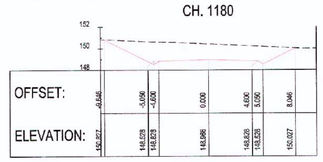

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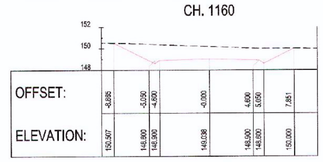

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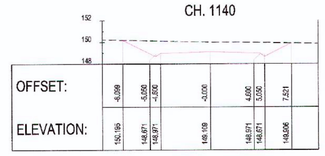

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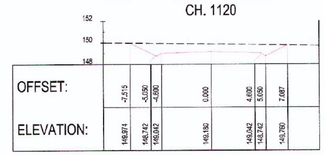

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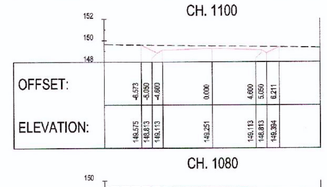

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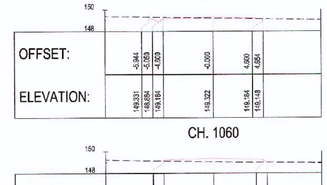

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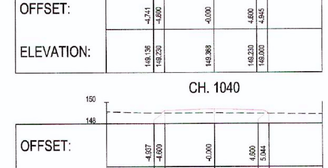

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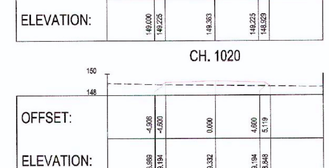

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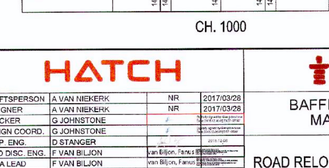


CH. 1000

LEGEND :
FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-294-0010-0001	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-294-0000-0001	TYPICAL LEVEL CROSSING LAYOUT
H353004-30000-224-273-0045-0001	CROSS SECTIONS CH. 1+200 TO CH. 1+880
H353004-30000-224-271-0064-0001	TOTE ROAD RELOCATION LAYOUT AND LONGITUDINAL SECTION (RAIL CH. 83+900 - 85+700)
DRAWING No.	DRAWING TITLE
REFERENCE DRAWINGS	

REGISTERED PROFESSIONAL ENGINEER D. STANGER D.DENNIS.STANGER@HATCH.COM NT/NU CANADA
REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

THIS DRAWING WAS PREPARED BY HATCH LTD. EXCLUSIVELY FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP (CLIENT) AND ITS RIGHTS IN RESPECT TO ITS SCOPE AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE CLIENT, INCLUDING ANY LIMITATIONS ON LIABILITY CONTAINED THEREIN. THIS DRAWING AND ITS CONTENTS REMAIN THE INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLIENT'S POWER TO GRANT LICENCES. THIS DRAWING IS CONDITIONED UPON THE NON-EXCLUSIVE LICENCE TO USE AND REPRODUCE THIS DRAWING BEING GRANTED TO THE CLIENT IN CONNECTION WITH THE PROJECT. HATCH GRANTS NO RIGHTS TO THE CLIENT TO ASSIGN, SUBLICENCE, REVISE, REINSTATEMENT AND REPAIR OF THE PROJECT. THIS DRAWING AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.

No.	DESCRIPTION	BY	CHK'D	DATE
	REVISIONS			
1	CROSS SECTIONS ALTERED TO SUIT RE-ALIGNED RAILWAY LINE.	AJVN		2018/12/05
0	APPROVED FOR CONSTRUCTION.	AJVN		2017/04/07

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	A VAN NIEKERK	NR	2017/03/28
DESIGNER	A VAN NIEKERK	NR	2017/03/28
CHECKER	G JOHNSTONE		
DESIGN COORD.	G JOHNSTONE		
RESP. ENG.	D STANGER		
LEAD DISC. ENG.	F VAN BILJON	Van Biljon, Fanie	
AREA LEAD	F VAN BILJON	Van Biljon, Fanie	
AREA MANAGER	F PITTMAN		2018-12-13

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

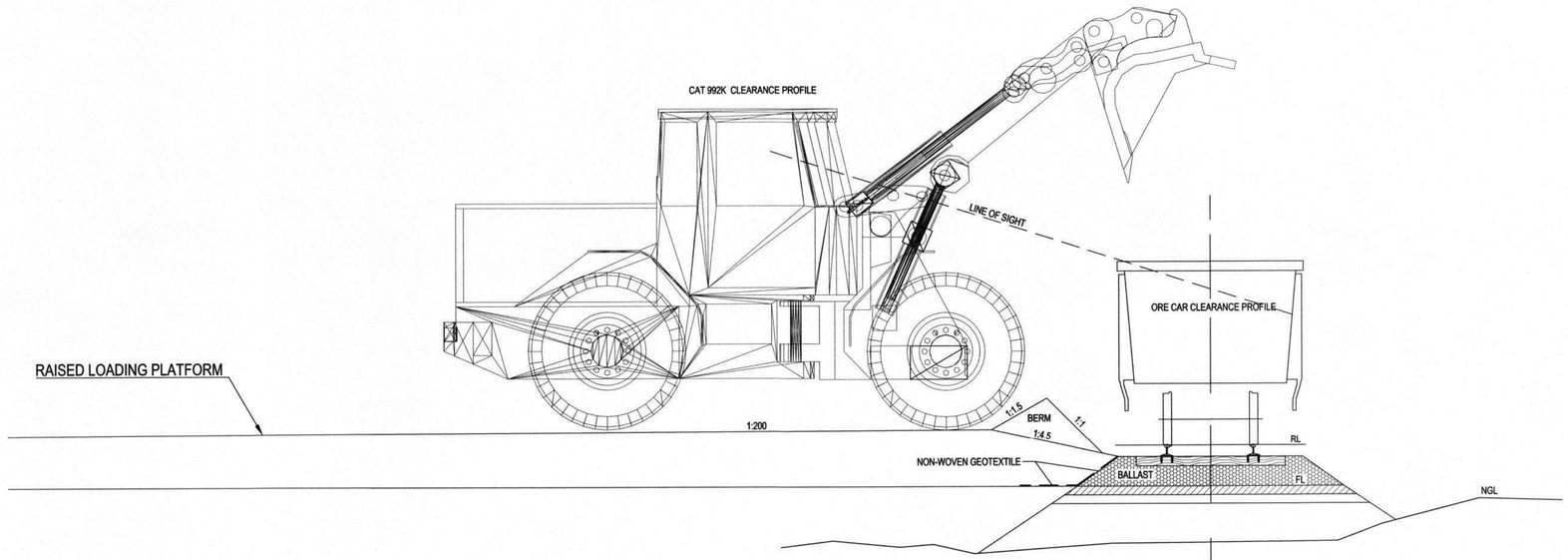
TOTE ROAD
ROAD RELOCATION RAIL CH. 83+900 - 85+700
CROSS SECTIONS CH. 0+000 TO CH. 1+180

SCALE	DWG. No.	REV
1:200 ON A0 NOTED	H353004-30000-224-273-0031-0001	1

SHEET SIZE: A0

USERNAMES
STIVER

DWG. No. H353004-30000-224-273-0032-0001



RAISED PLATFORM ORE CAR CLEARANCE PROFILE

SCALE 1:50

THIS DRAWING WAS PREPARED BY HATCH LTD. ("HATCH") FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP ("CLIENT") AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE THE CLIENT, INCLUDING ANY LIMITATIONS ON LIABILITY CONTAINED THEREIN. THIS DRAWING AND ITS CONTENTS REMAIN THE INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLIENT'S ROYALTY-FREE, IRREVOCABLE, PERPETUAL AND NON-EXCLUSIVE LICENSE TO USE AND REPRODUCE THE DRAWING FOR PURPOSES CONNECTED WITH THE PROJECT, INCLUDING THE CONSTRUCTION, COMPLETION, MAINTENANCE, EXTENSION, REINSTATEMENT AND REPAIR OF THE PROJECT. THIS DRAWING, AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.

NOT FOR CONSTRUCTION

No.	DESCRIPTION	BY	CHK'D	DATE
0	APPROVED FOR USE	WR	FVB	2017/02/03

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	S VAN DER WALT	NR	2018/04/06
DESIGNER	S VAN DER WALT	NR	2018/04/06
CHECKER	A Aquil		2018/05/04
DESIGN COORD.	A Aquil		2018/05/04
RESP. ENG.	F VAN BILJON		2018/05/08
LEAD DISC. ENG.	F VAN BILJON		2018/05/08
AREA LEAD	F VAN BILJON		2018/05/08
ENG. MANAGER	D STANGER		2018/05/09
CLIENT	F PITTMAN		2018/05/08

DRAWING APPROVAL STATUS: APPROVED FOR USE

HATCH

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE (56 km)
RAIL TEMPORARY LOADOUT
CROSS SECTION

DRAWING No.	DRAWING TITLE
H353004-30000-224-271-0029-0001	RAIL TEMPORARY LOADING FACILITY

REFERENCE DRAWINGS

REG. PROFESSIONAL

REVISIONS

SCALE 1:50 OR AS NOTED

DWG. No. H353004-30000-224-273-0032-0001

REV 0

SHEET SIZE: A1

$USERNAME$
$DATE$
$FILE$
$TIME$

DWG. No.
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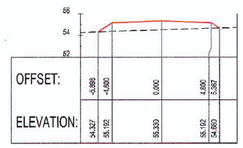

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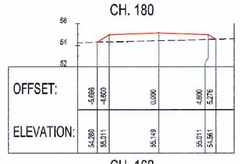

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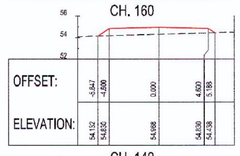

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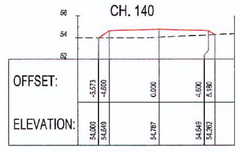

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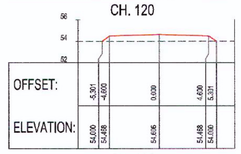

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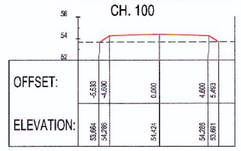

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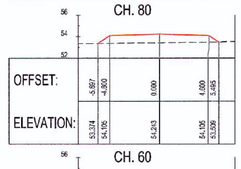

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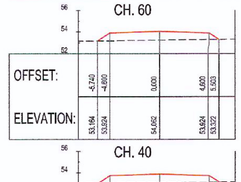

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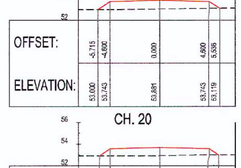

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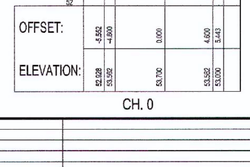

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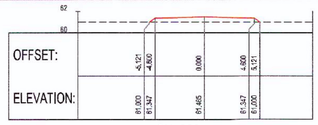

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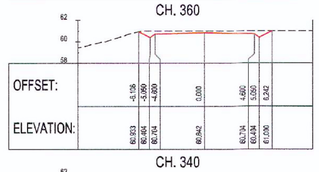

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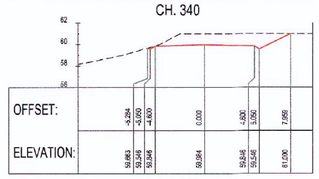

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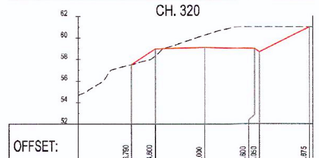

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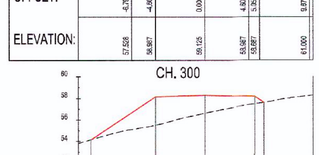

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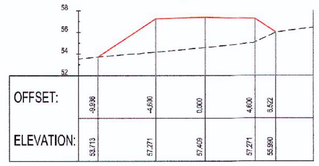

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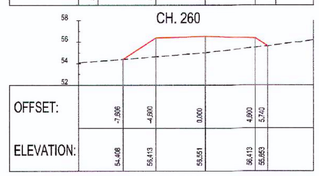

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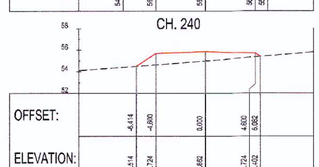

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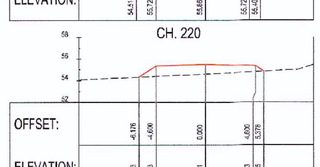

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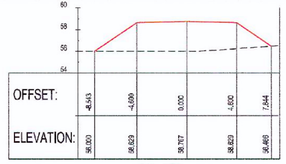

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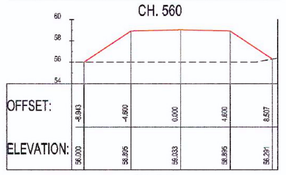

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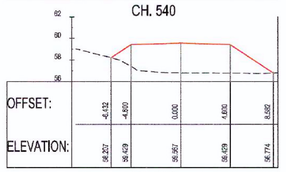

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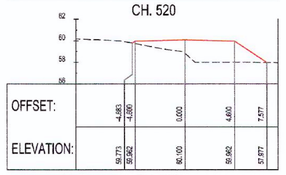

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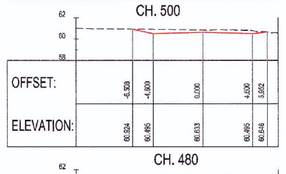

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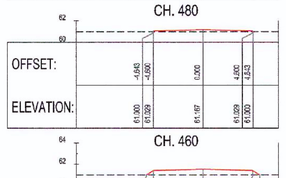

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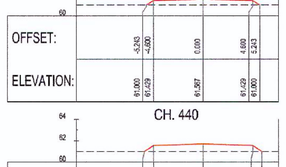

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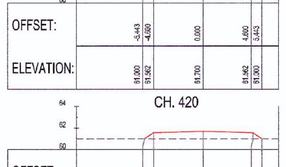

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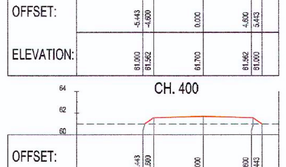

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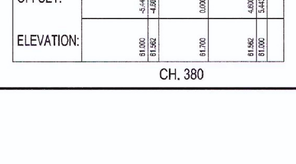

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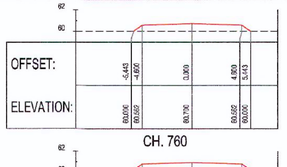

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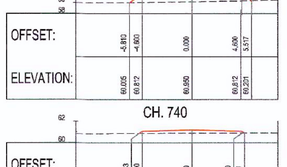

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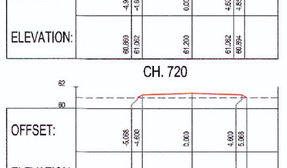

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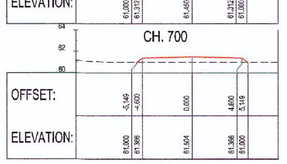

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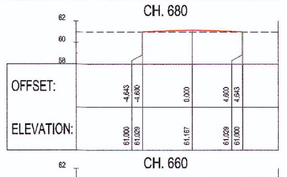

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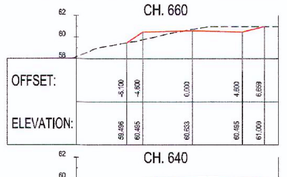

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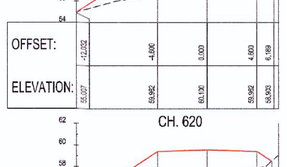
CH. 640



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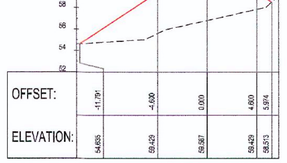

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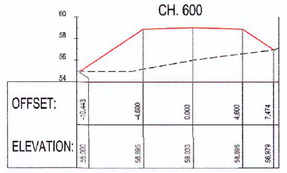

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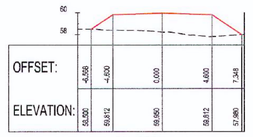

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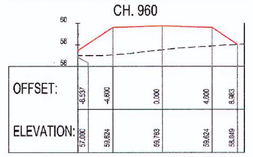

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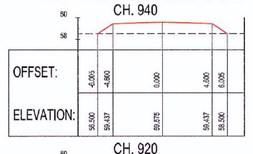

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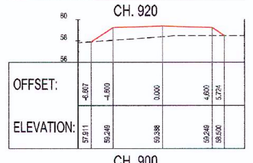

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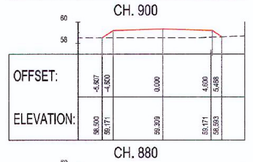

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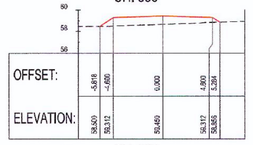

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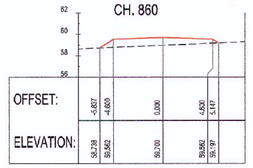

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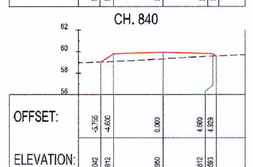

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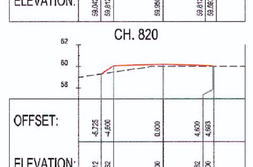

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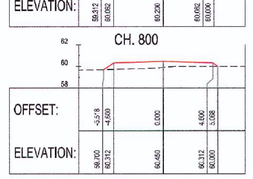

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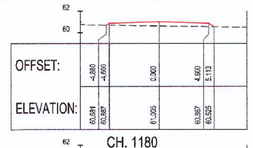

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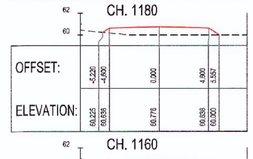

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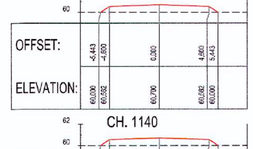

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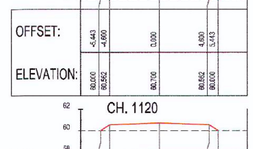

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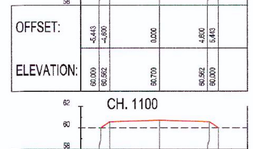

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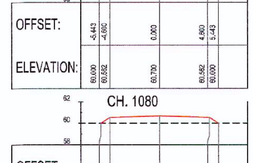

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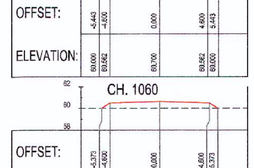

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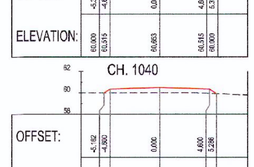

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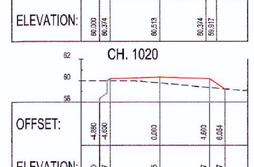

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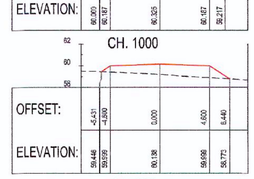

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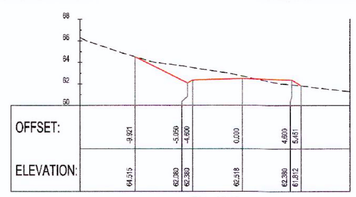

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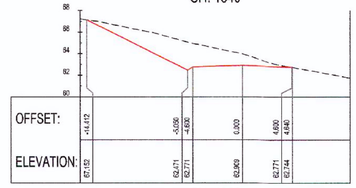

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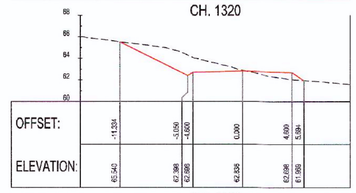

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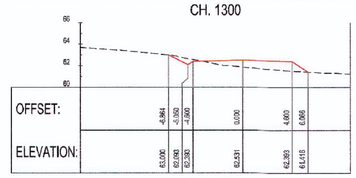

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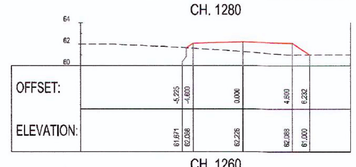

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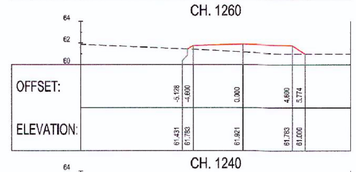

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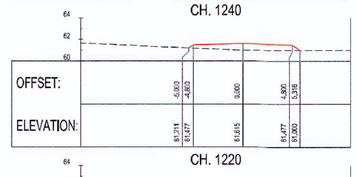

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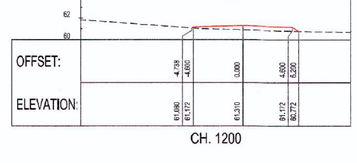

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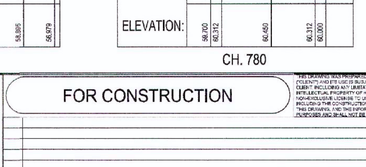

CH. 980

LEGEND :
ROAD FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER # 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-273-0034	CROSS SECTIONS CH. 1+360 TO 2+130
H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-271-0055	TOTE ROAD RELOCATION LAYOUT AND LONGITUDINAL SECTION (CH. 84+500 TO CH. 85+900)
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

REGISTERED PROFESSIONAL ENGINEER R. A. HALIM LICENSEE 2018-09-05 NWT/NU

REG. PROFESSIONAL

FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
0	APPROVED FOR CONSTRUCTION	AJVN		2018/09/04

REVISIONS

HATCH

DRAFTSPERSON	A VAN NIEKERK	NR	2018/06/22
DESIGNER	A VAN NIEKERK	NR	2018/06/22
CHECKER	A AQUIL		09/05/2018
DESIGN COORD	A AQUIL		09/05/2018
RESP. ENG.	R HALIM		2018-09-05
LEAD DISC. ENG.	F VAN BILJON		09/05/2018
AREA LEAD	F VAN BILJON		09/05/2018
ENG. MANAGER	D STANGER		2018-09-05
AREA MANAGER	F PITTMAN		2018-09-11
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

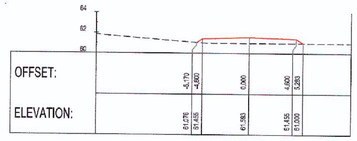
Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
ACCESS ROAD TO RAIL WORKSHOP
CROSS SECTIONS CH. 0+000 TO 1+340km

SCALE	DWG. No.	REV.
1:200 (OR AS NOTED)	H353004-30000-224-273-0033-0001	0

SHEET SIZE: A0



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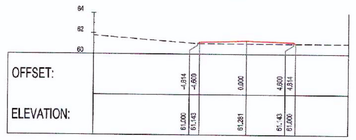

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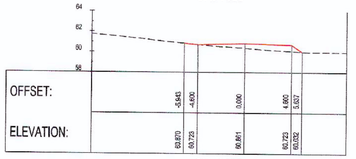

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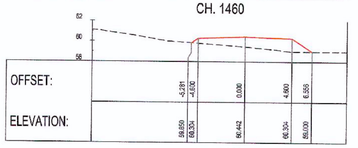

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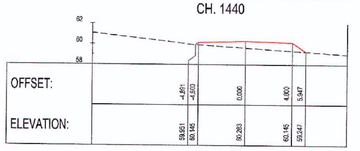

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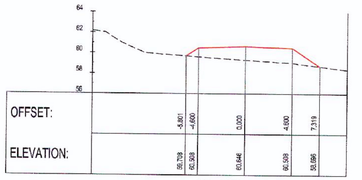

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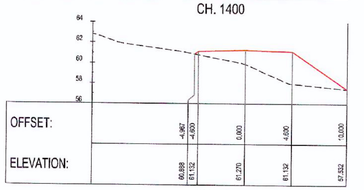

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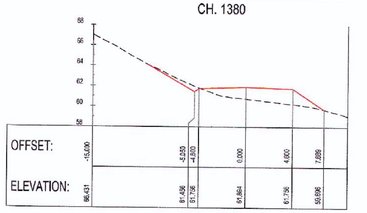

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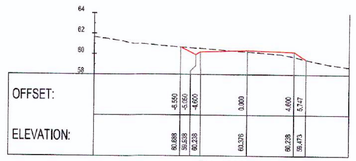

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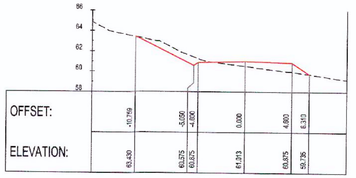

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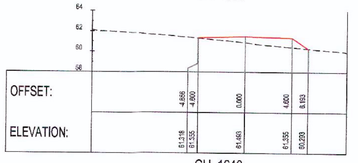

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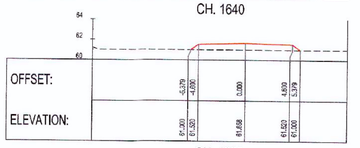

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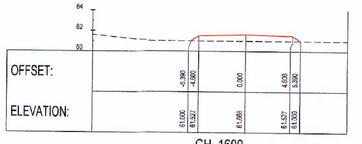

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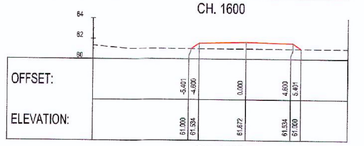

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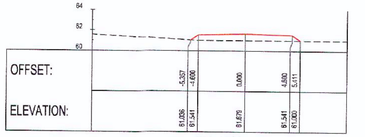

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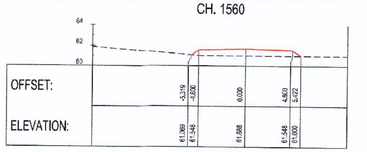

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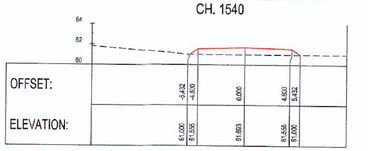

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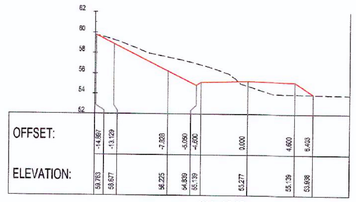

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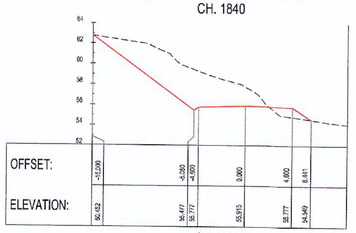

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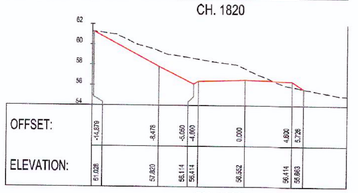

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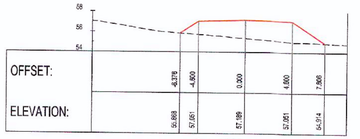

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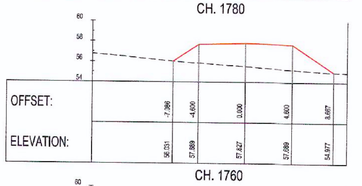

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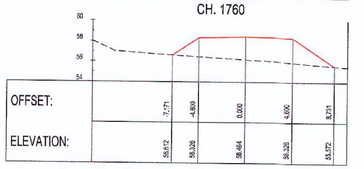

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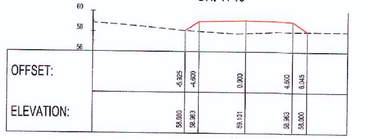

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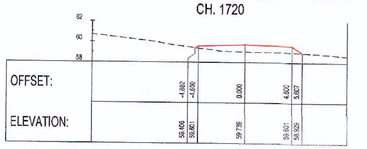

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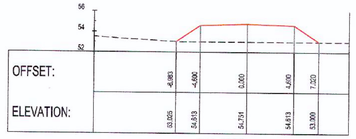

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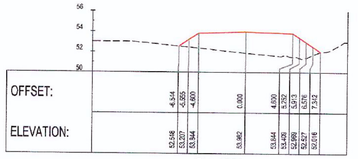

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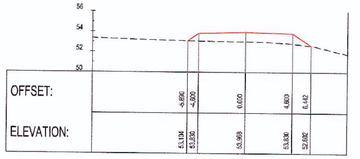

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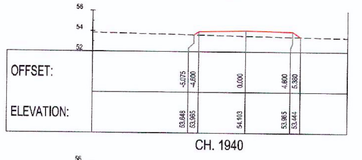

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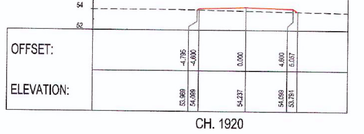

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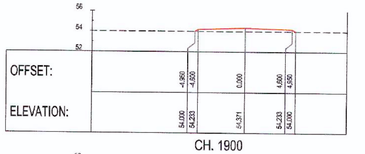

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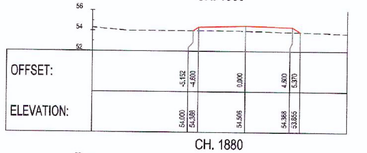

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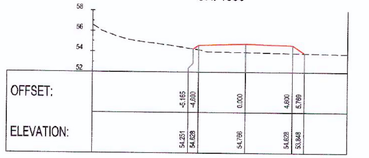

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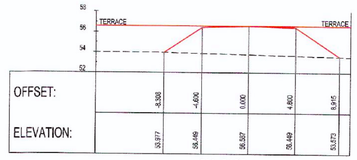

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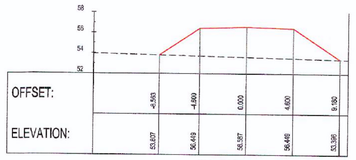

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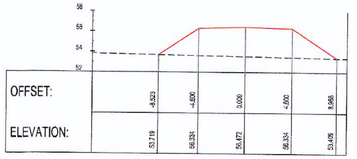

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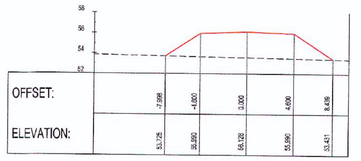

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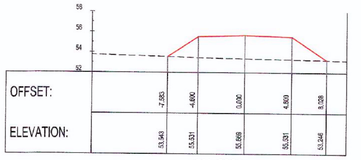

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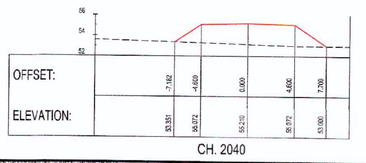

CH. 2040

LEGEND :
ROAD FORMATION
NGL

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-273-0033	CROSS SECTIONS CH. 0+000 TO 1+340
H353004-30000-224-294-0010	TYPICAL HAUL ROAD CROSS SECTION
H353004-30000-224-271-0055	TOTE ROAD RELOCATION LAYOUT AND LONGITUDINAL SECTION (CH. 84+500 TO CH. 85+900)
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

PROFESSIONAL ENGINEER — PERMIT TO PRACTICE — H.A. HALIM — LICENSEE — 2018-09-05 — NWT/NU

REG. PROFESSIONAL

FOR CONSTRUCTION

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No.	DESCRIPTION	BY	CHK'D	DATE
0	APPROVED FOR CONSTRUCTION	AJVN		2018/09/04

REVISIONS

HATCH

DRAFTSPERSON	A VAN NIEKERK	NR	2018/08/22
DESIGNER	A VAN NIEKERK	NR	2018/08/22
CHECKER	A AQUIL		09/05/2018
DESIGN COORD.	A AQUIL		09/05/2018
RESP. ENG.	R HALIM		2018-09-05
LEAD DISC. ENG.	F VAN BILJON		09/05/2018
AREA LEAD	F VAN BILJON		09/05/2018
ENG. MANAGER	D STANGER		2018/09/05
AREA MANAGER	F PITTMAN		2018-09-05

ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
ACCESS ROAD TO RAIL WORKSHOP
CROSS SECTIONS CH. 1+340 TO 2+130km

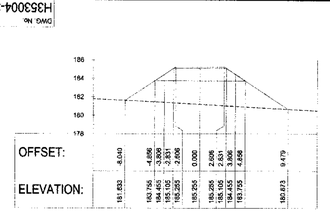
SCALE	DWG. No	REV
1:200 OR AS NOTED	H353004-30000-224-273-0034-0001	0

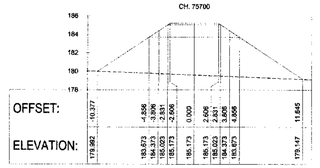
SHEET SIZE: A1

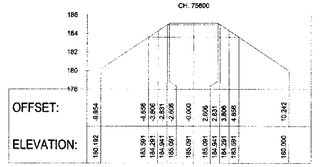
$USERNAME$
$DATE$
$STYLES$

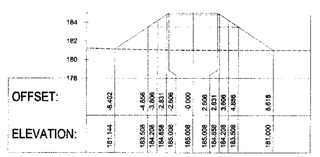
1 2 3 4 5 6 7 8

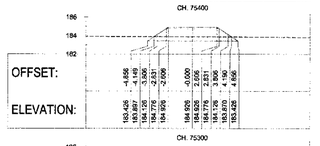
DWG No. H353004-30000-224-273-0035-0001

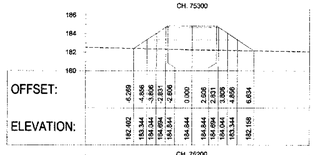


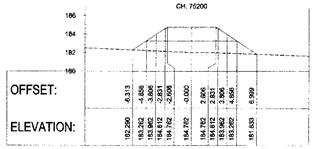


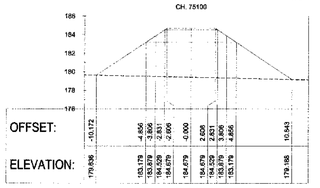


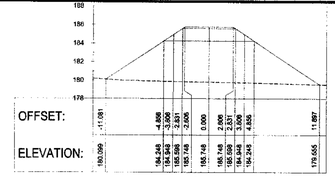


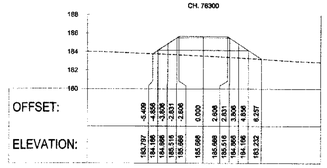


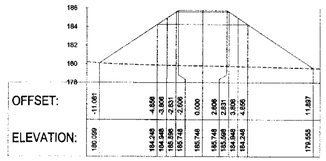


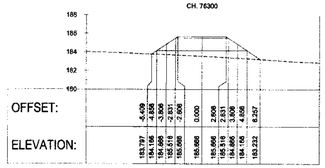


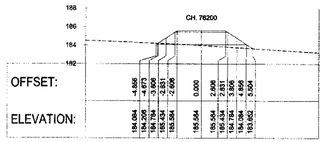


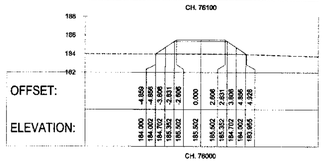


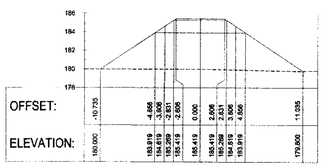


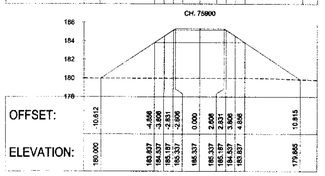


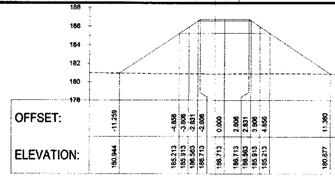


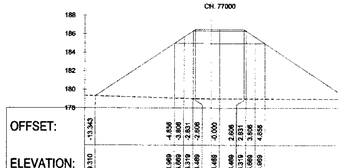


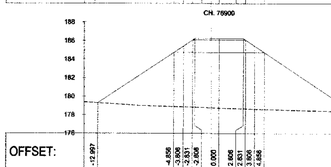


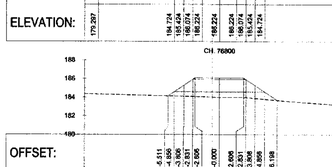


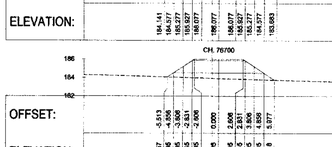


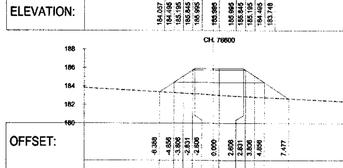


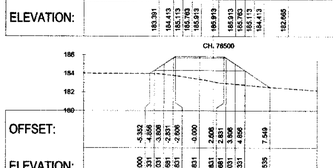


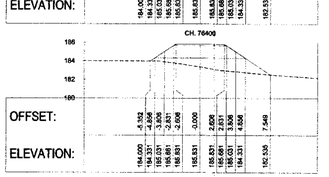


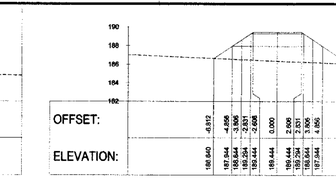


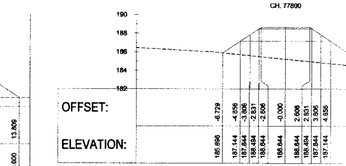


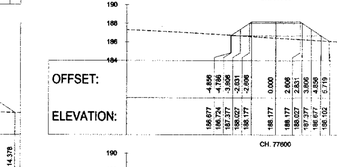


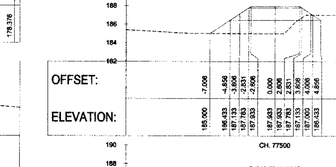


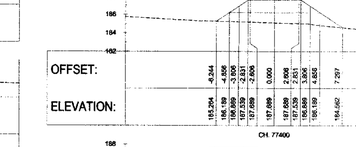


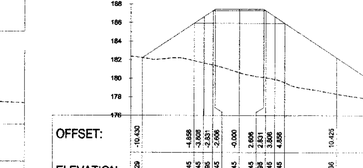


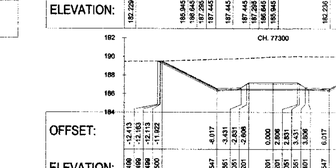


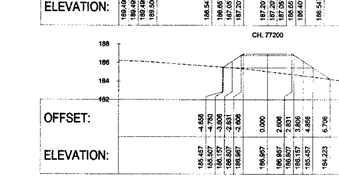


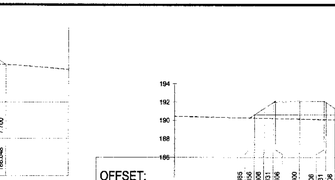


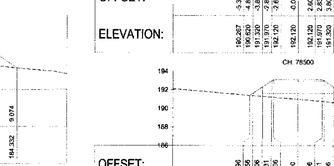


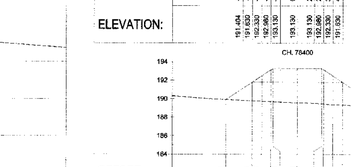


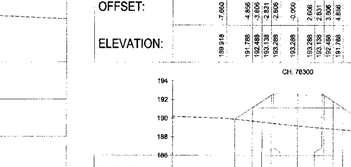


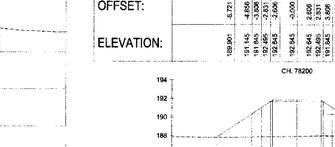


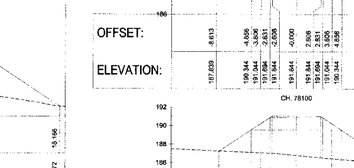


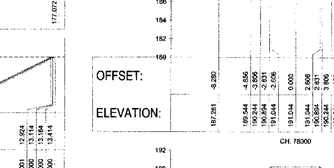












PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 542
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km

DRAWING No. DRAWING TITLE

REFERENCE DRAWINGS

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No.	DESCRIPTION	BY	CHKD	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	AVN	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		

ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:	INTERNAL / CLIENT REVIEW		

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 75000m TO 78500 m

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SHEET SIZE: A0

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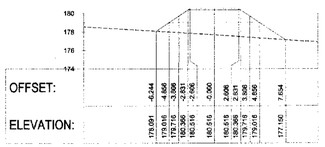
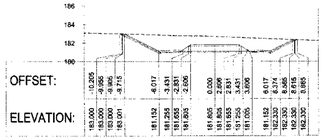
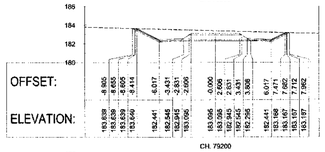
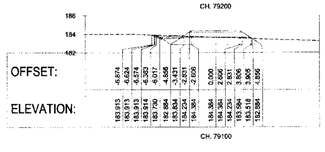
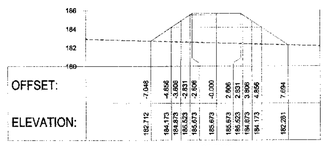
DWG. No. H353004-30000-224-273-0036-0001

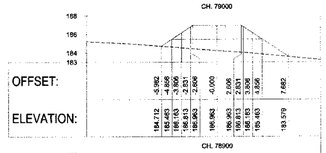


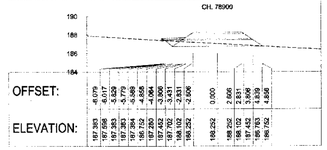


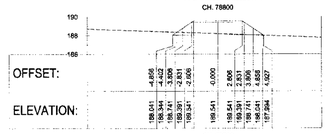


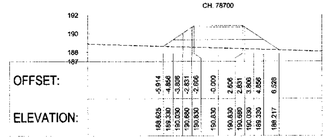


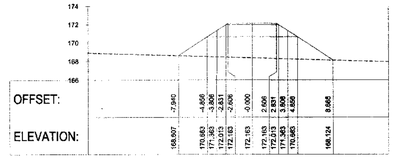


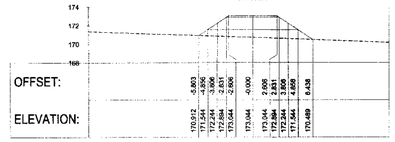


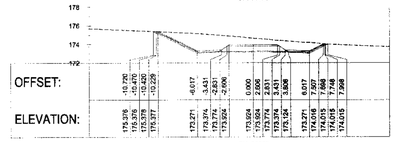


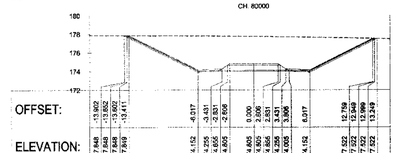


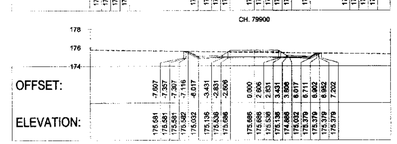


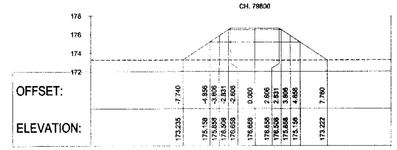


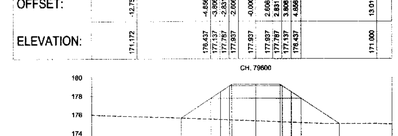


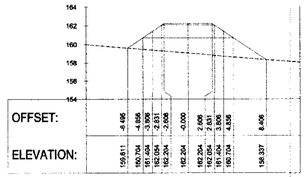


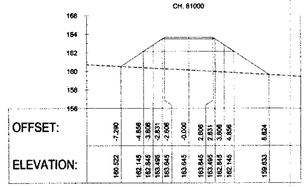


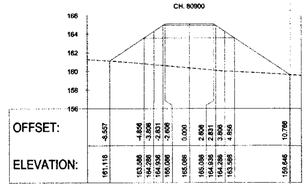


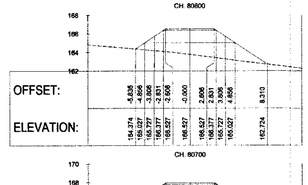


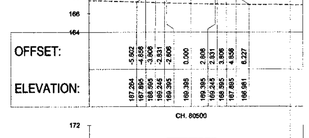


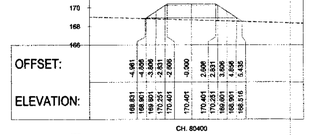


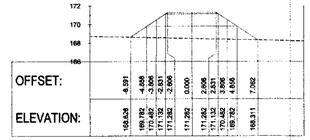


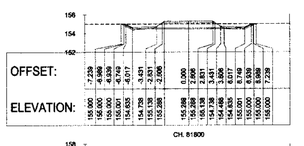


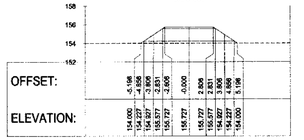


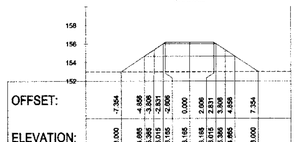


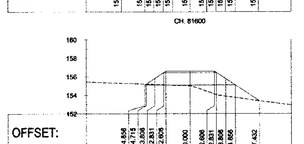


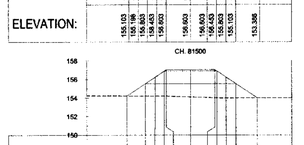


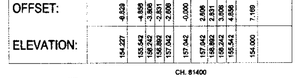


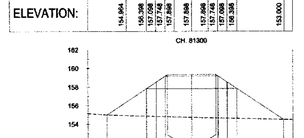


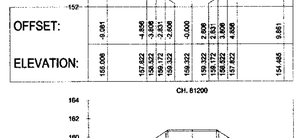


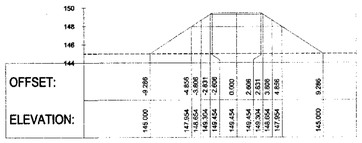


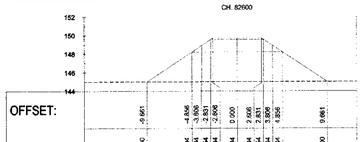


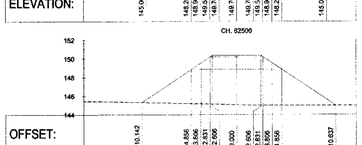


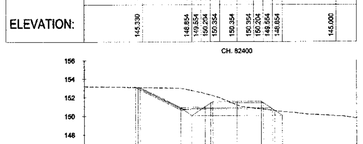


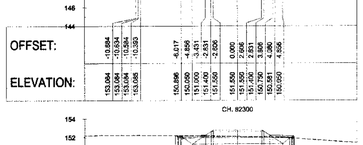


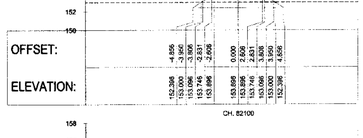


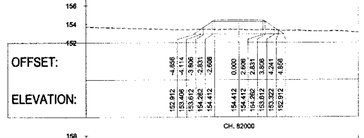


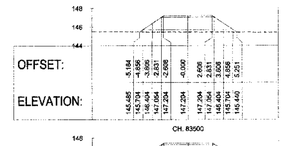


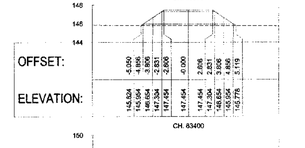


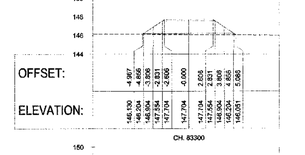


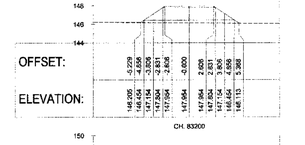


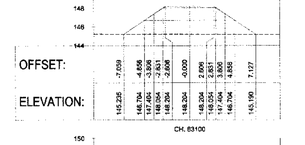


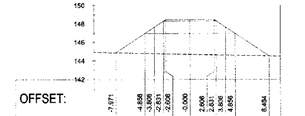


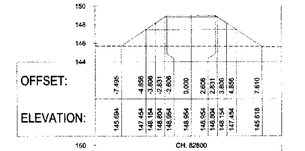


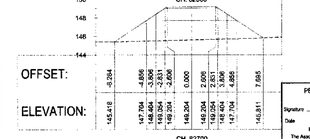












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Signature
Date
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H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0014-0001.

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DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
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DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 78600m TO 83500 m

SCALE	DWG. No.	REV
1:200 (AT A3 HOLD)	H353004-30000-224-273-0036-0001	A

SHEET SIZE: A0

SUPERSEDES 5TIMES
SUPERSEDES

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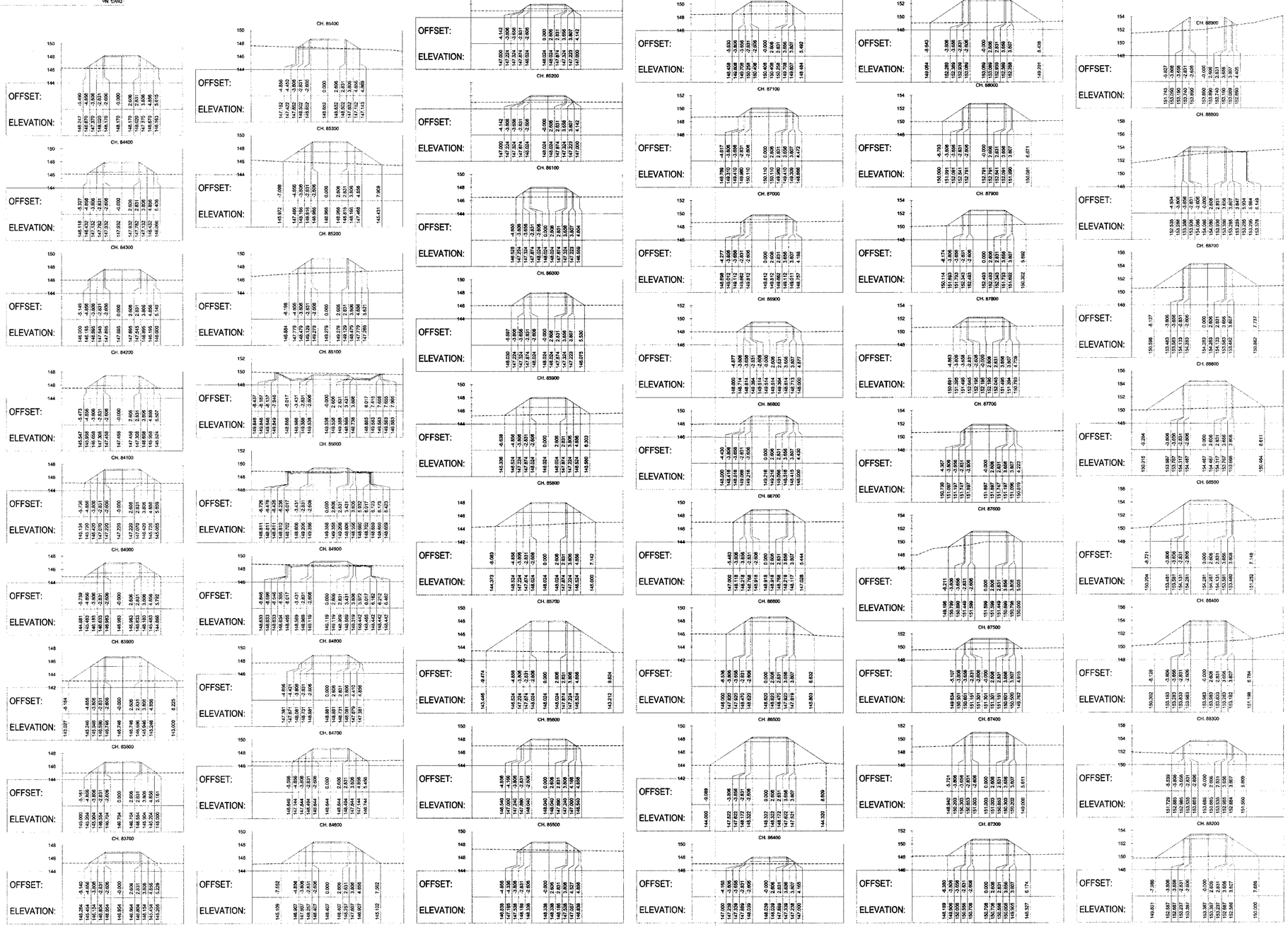
A B C D E F

DWG. No. H353004-30000-224-273-0037-0001



NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0014-0001.

DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0005	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km

REFERENCE DRAWINGS

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REG. PROFESSIONAL

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DESIGNER	A VAN NIEKERK	NR	2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

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Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 83600m TO 88800 m

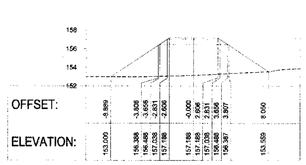
SCALE 1:200 OR AS NOTED

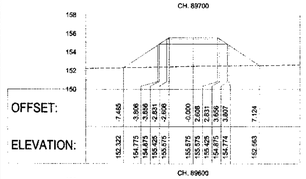
DWG. No. H353004-30000-224-273-0037-0001 REV A

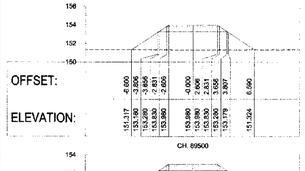
SHEET SIZE: A0

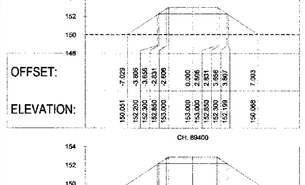
DRAWINGS SCALED 5 TIMES

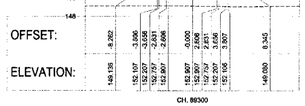
DWG No. H353004-30000-224-273-0038-0001

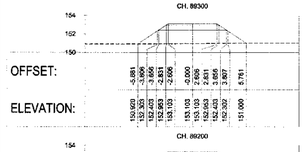


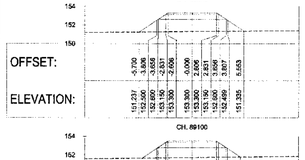


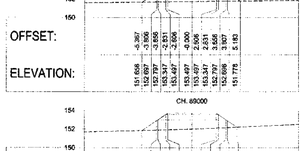


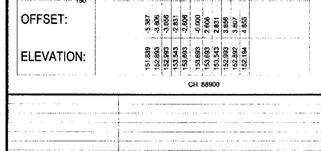


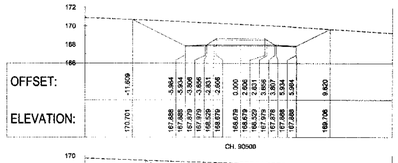


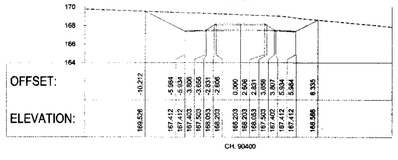


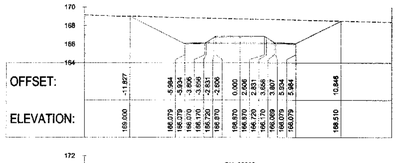


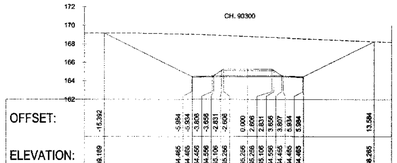


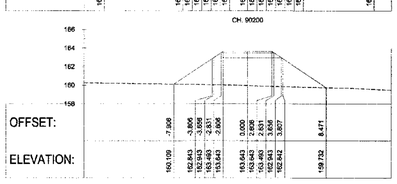


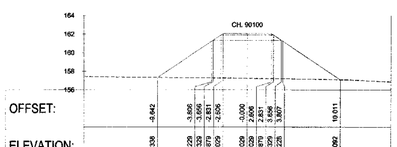


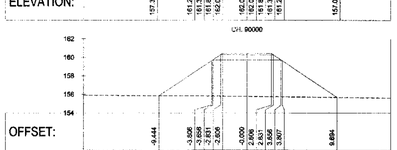


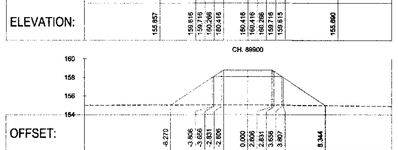


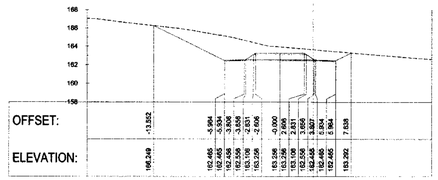


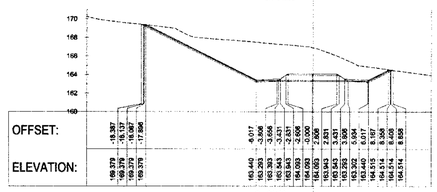


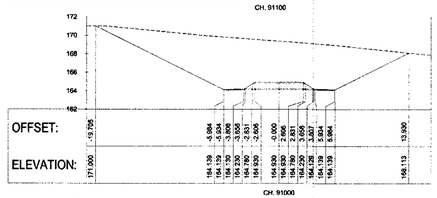


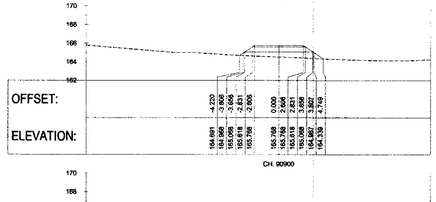


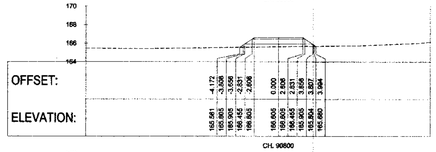


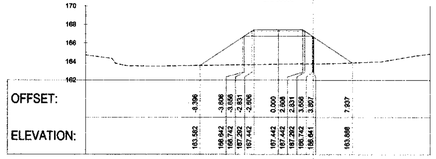


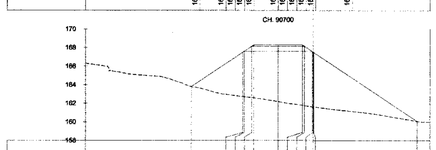


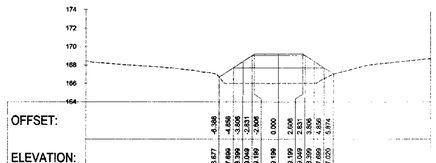


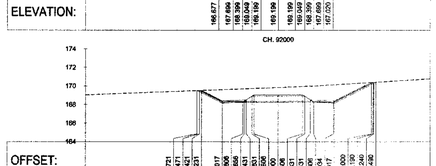


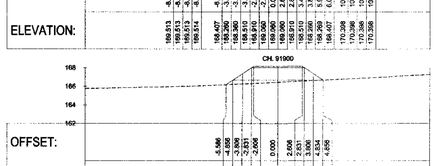


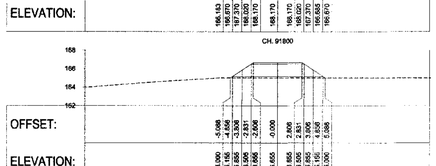


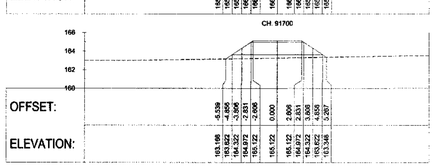


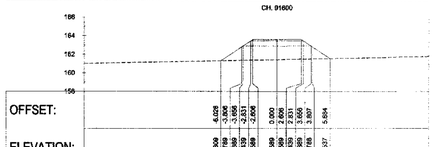


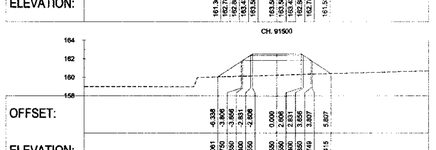


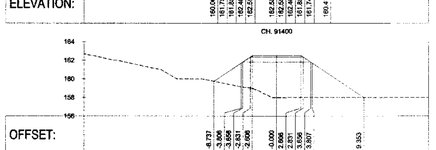


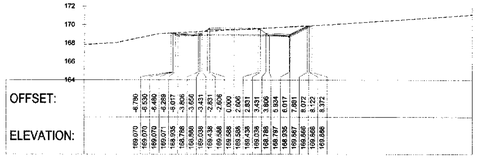


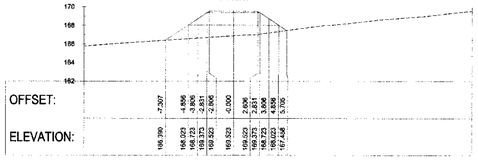


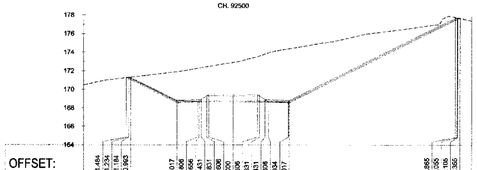


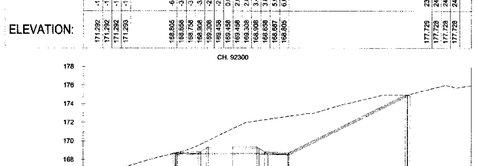


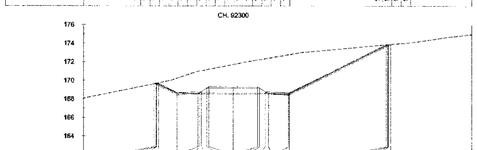


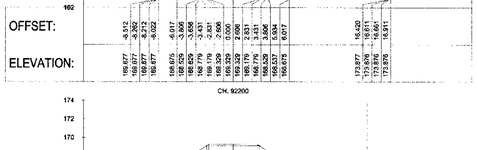












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The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

REFERENCE DRAWINGS	
H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.560km
H353004-30000-224-271-0004 to 0007	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.560km
DRAWING No.	DRAWING TITLE

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REVISIONS					
No.	DESCRIPTION	BY	CHK'D	DATE	
A	INTERNAL / CLIENT REVIEW.	WR	GM	2015/11/11	

REG. PROFESSIONAL

HATCH

DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN NIEKERK	NR	2019/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BIJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BIJON		
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ENG. MANAGER	D STANGER		
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ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS:	INTERNAL / CLIENT REVIEW		

Baffinland

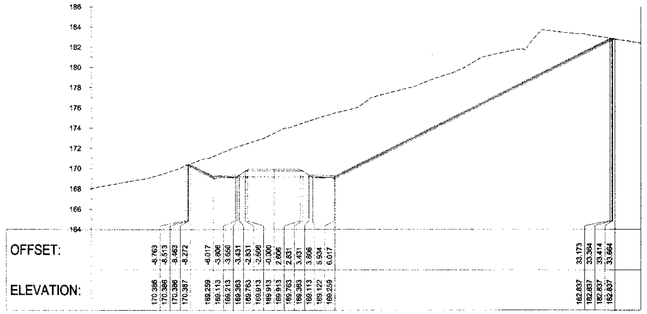
BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

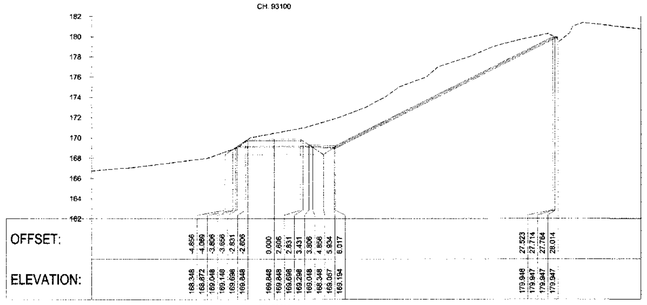
RAIL SITE
FORMATION CROSS SECTIONS
CH. 88900m TO 92600 m

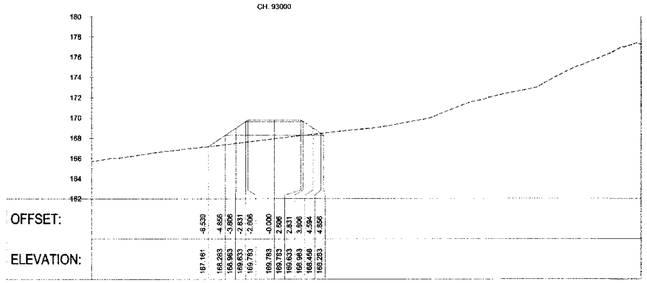
SCALE 1:200 OR AS NOTED
DWG. No. H353004-30000-224-273-0038-0001
REV A
SHEET SIZE: A1

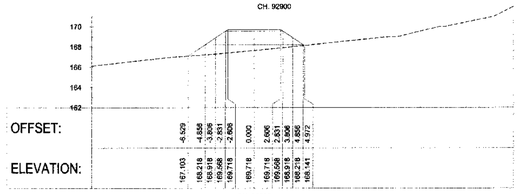
SUBDRAINAGES STATES 25 SEP
STAKES

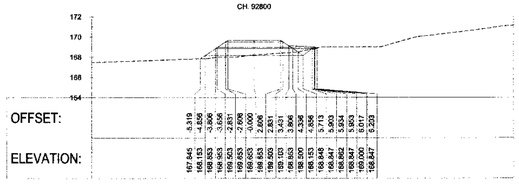
DWG. No. H353004-30000-224-273-0039-0001

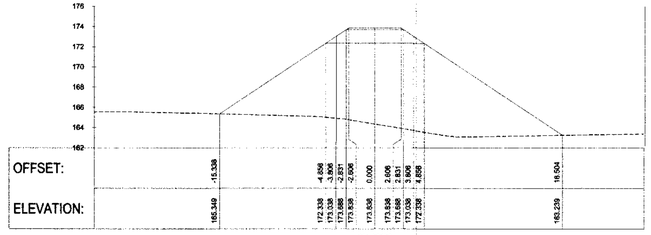


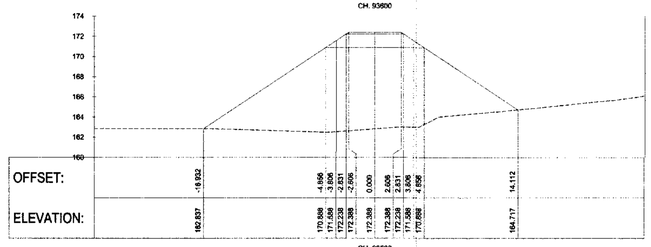


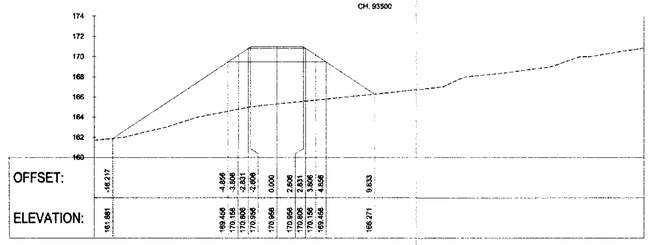


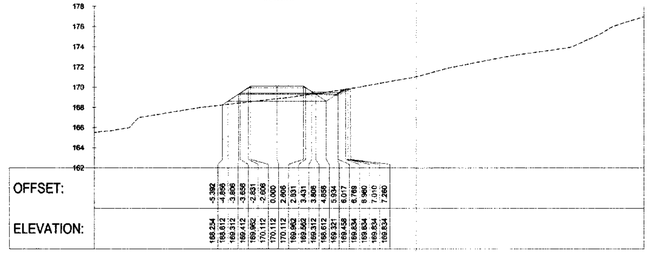


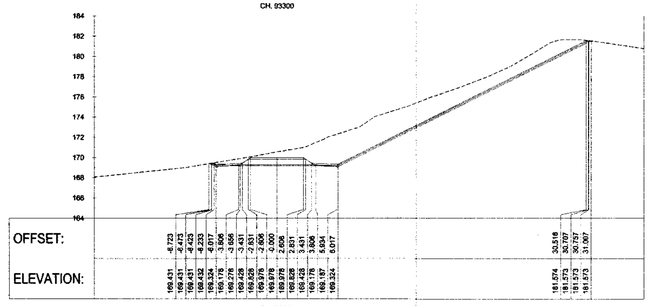


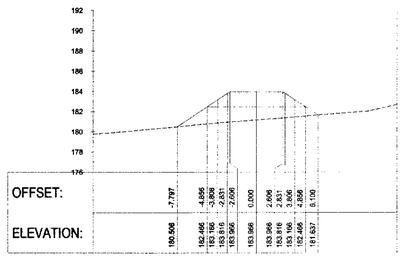


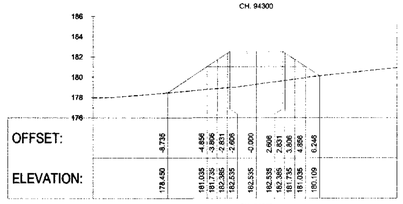


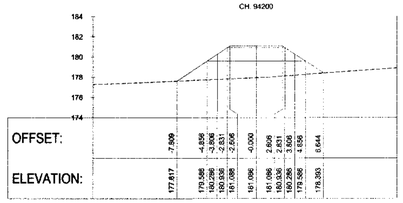


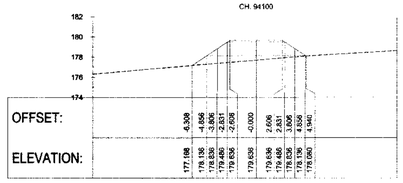


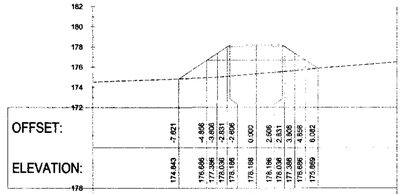


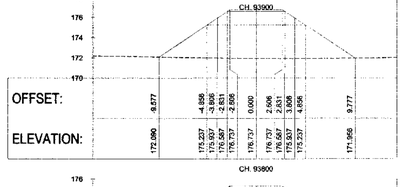


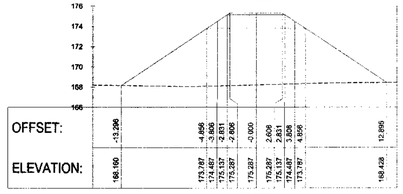


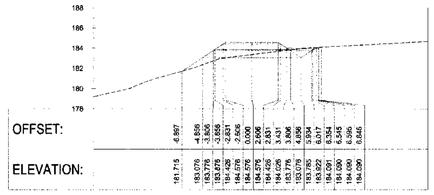


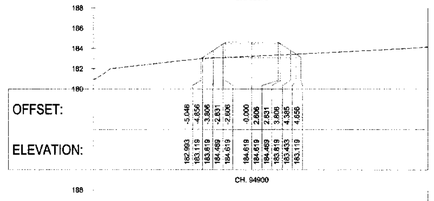


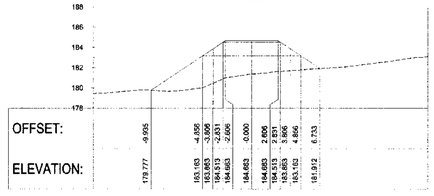


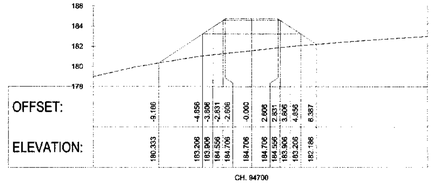


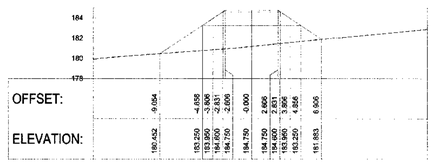


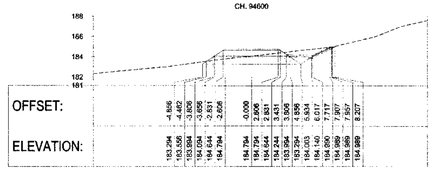


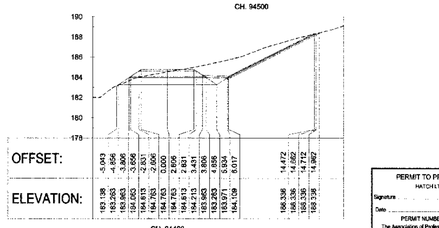












PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 012
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

H353004-30000-224-273-0039-0001 | A

H353004-30000-220-294-0003 to 0006 TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025 FORMATION SECTIONS CH. 0.220km TO 109.680km
H353004-30000-224-271-0004 to 0027 LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.680km

DRAWING No. | DRAWING TITLE

REFERENCE DRAWINGS

NOTE:

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS)
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0015-0001.

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD		2018/11/11
DESIGNER	A VAN NIEKERK		2018/11/07
CHECKER	G JOHNSTONE		2018/11/12
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

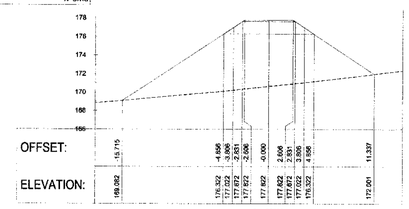
RAIL SITE
FORMATION CROSS SECTIONS
CH. 92700m TO 95000 m

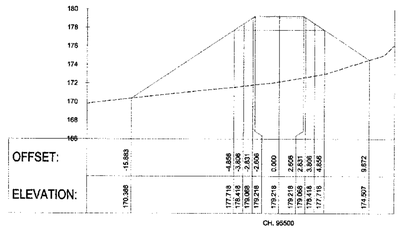
SCALE 1:200 OR AS NOTED | DWG. No. H353004-30000-224-273-0039-0001 | REV A

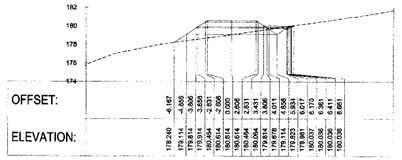
SHEET SIZE: A0

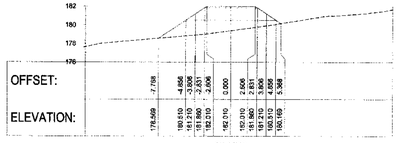
SUBSURFACE | SOLIDS | STAKES

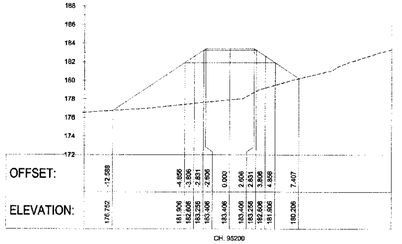
DWG. No. H353004-30000-224-273-0040-0001

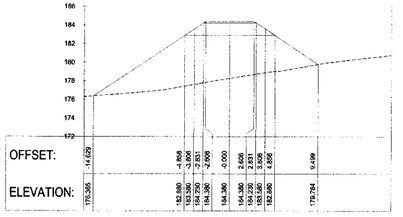


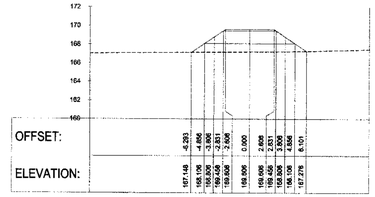


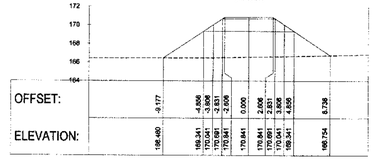


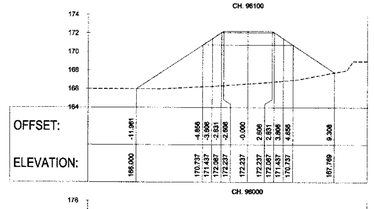


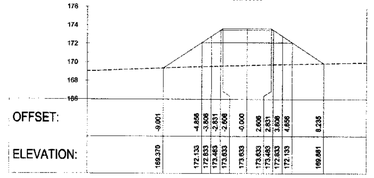


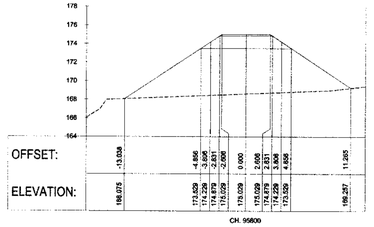


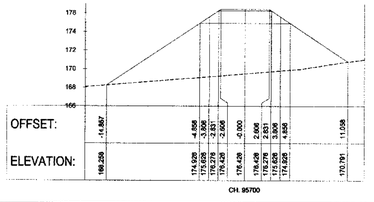


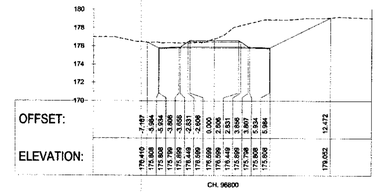


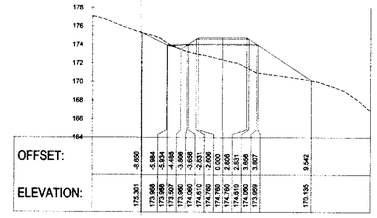


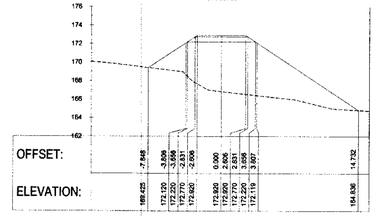


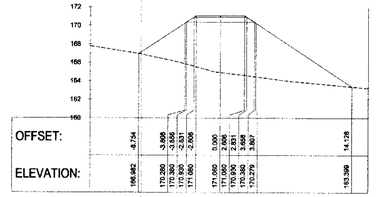


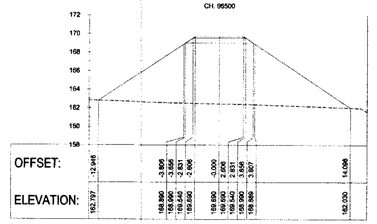


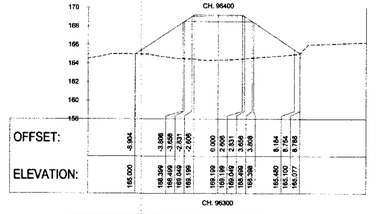


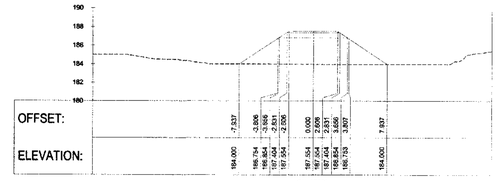


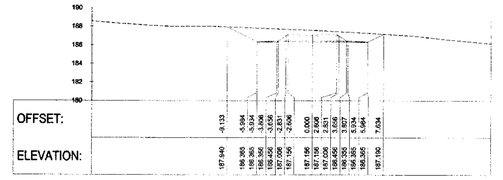


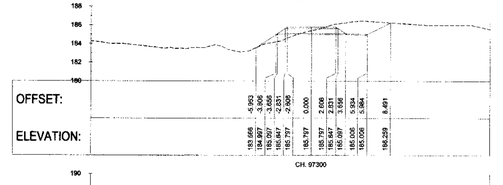


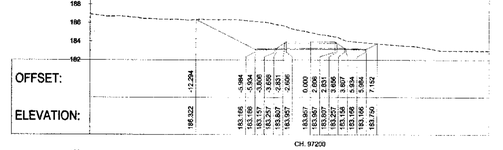


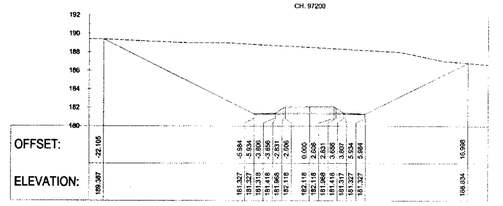


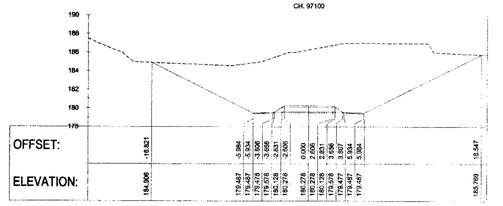


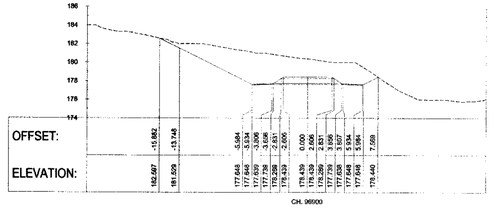












H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-271-0001 to 0035	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 105.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE:

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS).
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-280-0015-0001.

REG. PROFESSIONAL

No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/1

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HATCH

DRAFTSPERSON	W RIDGARD	WR	2018/11/1
DESIGNER	A VAN NIEKERK	WR	2018/11/07
CHECKER	G JOHNSTONE		2019/1/12
DESIGN COORD.	F VAN BILJON		2019/1/11
RESP. ENG.	R HALIM		
LEAD DISC. ENG.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 95100m TO 97500 m

SCALE	DWG. No	REV
1:200	H353004-30000-224-273-0040-0001	A
OR AS NOTED		

SHEET SIZE: A1

PERMIT TO PRACTICE
HATCH LTD
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

BUSINESS UNIT/DIVISION: STRUCTURES

DWG. No. H353004-30000-224-273-0041-0001

CH. 98200

CH. 98100

CH. 98000

CH. 97900

CH. 97800

CH. 97700

CH. 97600

CH. 99100

CH. 99000

CH. 98900

CH. 98800

CH. 98700

CH. 98600

CH. 98500

CH. 98400

CH. 98300

CH. 99900

CH. 99800

CH. 99700

CH. 99600

CH. 99500

CH. 99400

CH. 99300

CH. 99200

CH. 100800

CH. 100700

CH. 100600

CH. 100500

CH. 100400

CH. 100300

CH. 100200

CH. 100100

CH. 100000

CH. 101600

CH. 101500

CH. 101400

CH. 101300

CH. 101200

CH. 101100

CH. 101000

CH. 100900

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-269-0016-0001.

REFERENCE DRAWINGS

DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km

REG. PROFESSIONAL

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	WR	2018/11/11	
DESIGNER	A VAN NIEKERK	AVN	2018/11/07	
CHECKER	G JOHNSTONE	GJ	2018/11/12	
DESIGN COORD.	F VAN BILJON	FVB	2018/11/12	
RESP. ENG	R HAUM			
LEAD DISC. ENG.	F VAN BILJON	FVB	2018/11/12	
AREA LEAD	F VAN BILJON	FVB	2018/11/12	
ENG. MANAGER	D STANGER			
AREA MANAGER	F PITTMAN			
ROLE	NAME	SIGNATURE	DATE	

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 97600m TO 101600 m

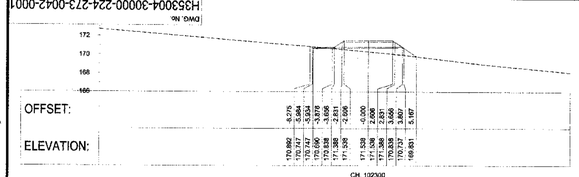
SCALE 1:200 OR AS NOTED

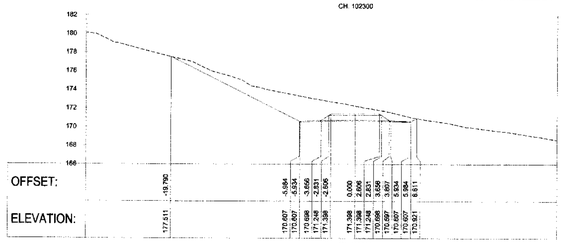
DWG. No. H353004-30000-224-273-0041-0001 REV A

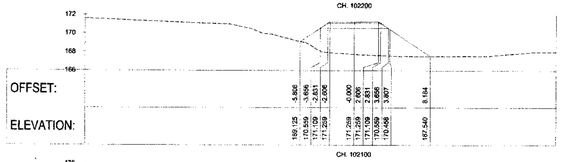
SHEET SIZE: A0

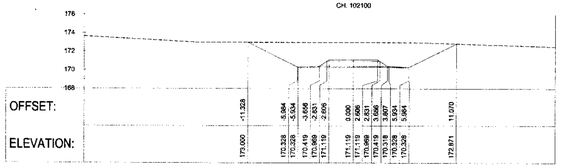
SUBSURFACES: STAKES
EDITED:
SPLES:

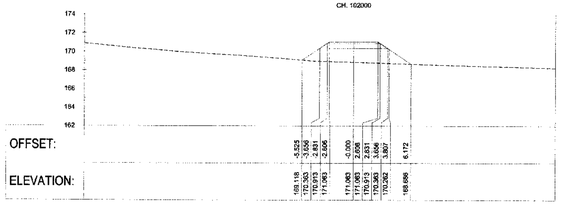
DWG. No. H353004-30000-224-273-0042-0001

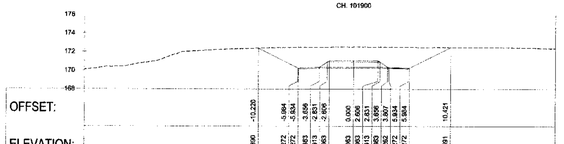


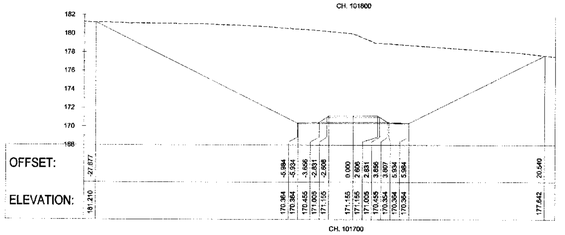


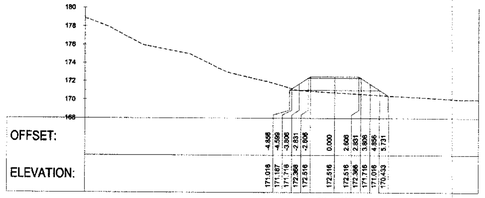


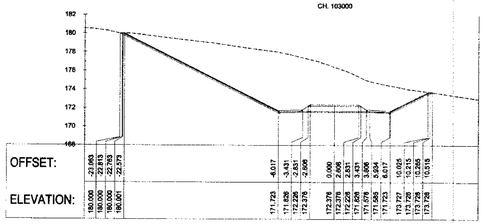


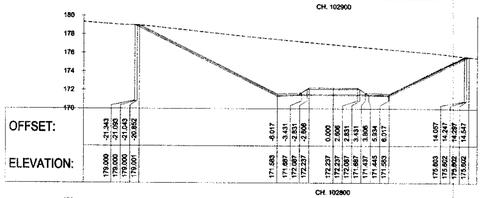


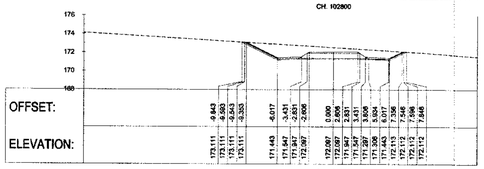


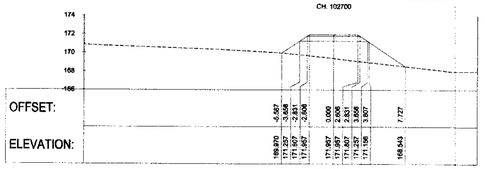


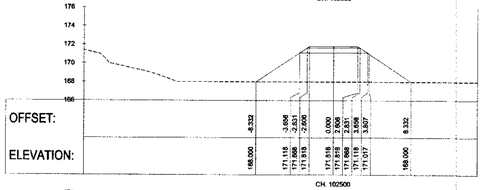


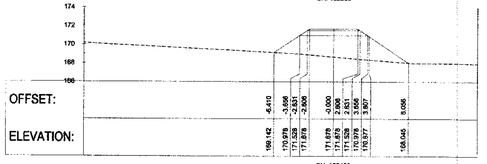


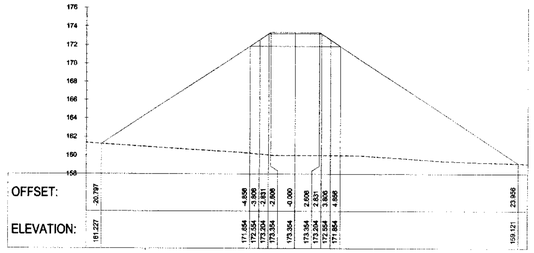


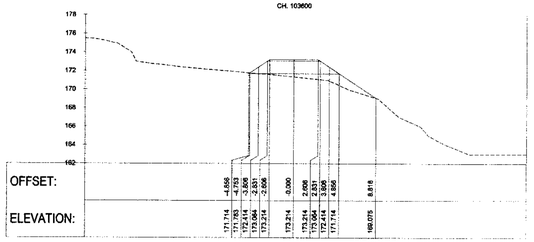


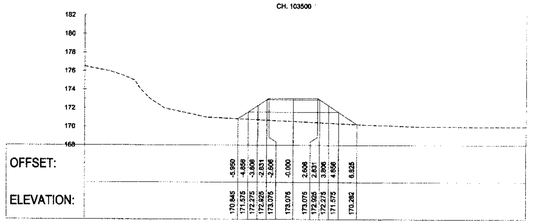


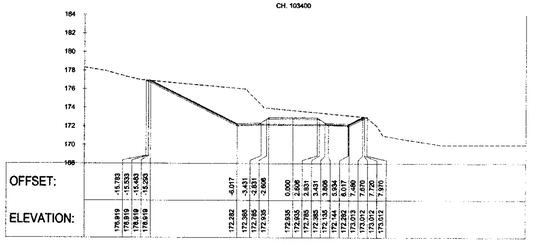


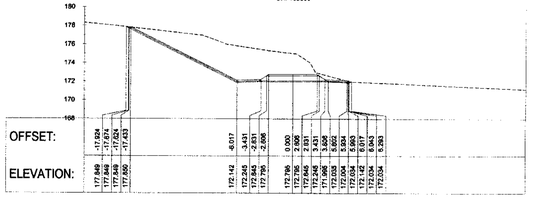


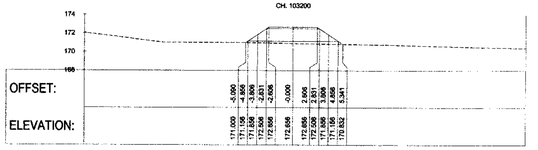


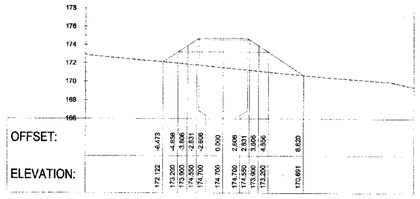


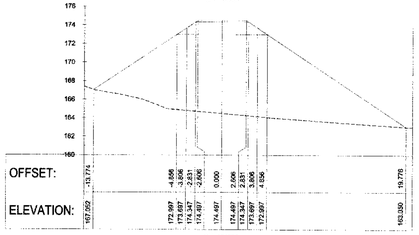


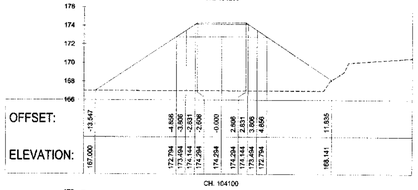


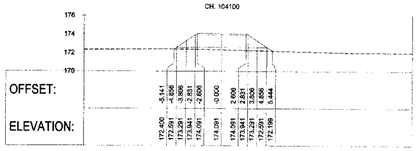


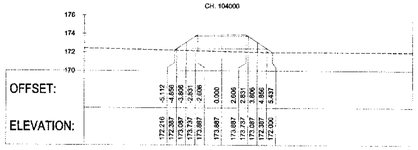


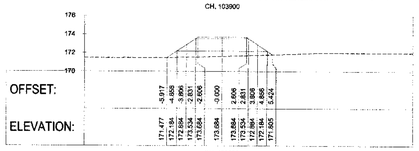


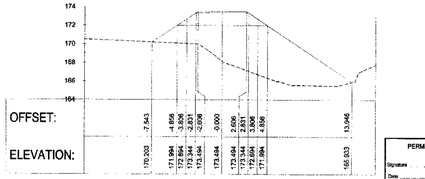












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Signature
Date
PERMIT NUMBER: P 517
The Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGA)

H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.980km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

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No.	DESCRIPTION	BY	CH'K'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/1

REVISIONS

HATCH

DRAFTSPERSON	W.RIDGARD		2018/11/1
DESIGNER	A.VAN NIEKERK		2018/11/07
CHECKER	D.JOHNSTONE		2018/11/14
DESIGN COORD.	F.VAN BILJON		2018/11/21
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AREA LEAD	F.VAN BILJON		2018/11/21
ENG MANAGER	D.STANGER		
AREA MANAGER	F.PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 101700m TO 104300 m

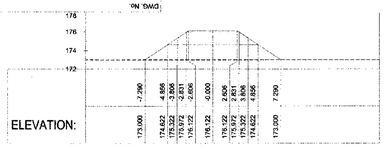
SCALE	DWG. No.	REV
1:200	H353004-30000-224-273-0042-0001	A

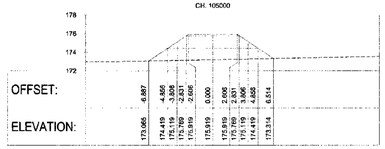
DALS NOTED

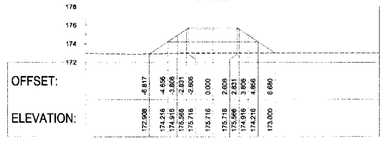
SHEET SIZE: A0

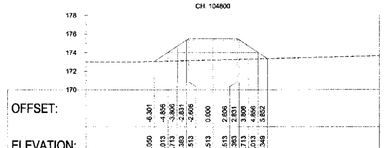
SUBSEQUENT ISSUES
STAGES

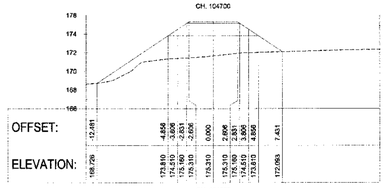
DWG. No. H353004-30000-224-273-0043-0001

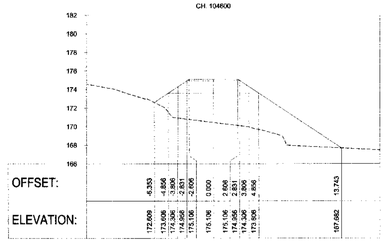


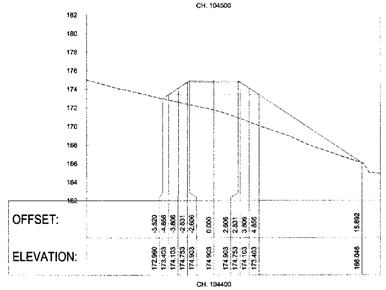


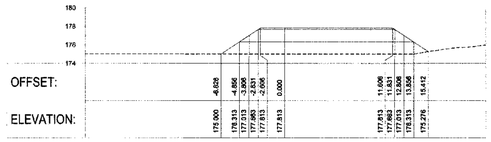


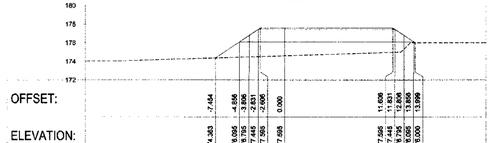


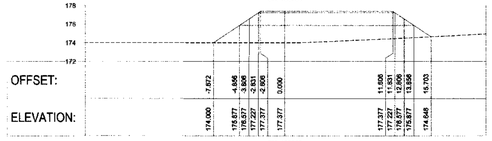


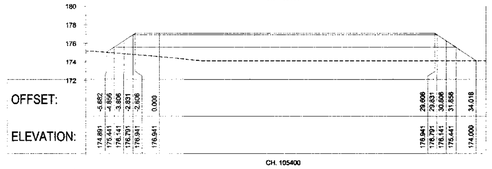


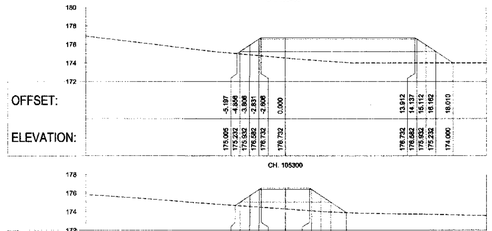


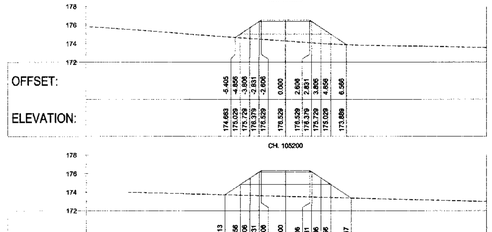


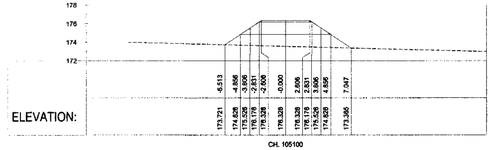


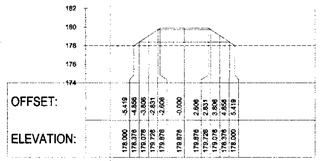


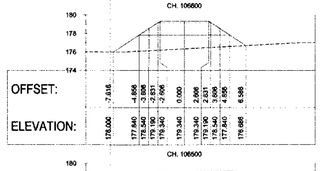


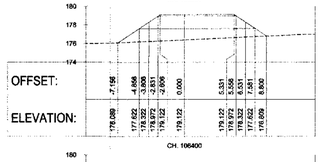


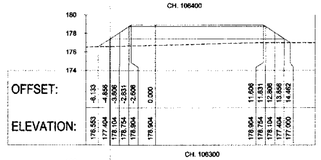


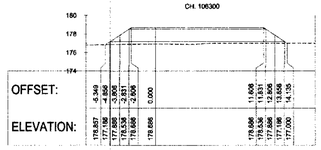


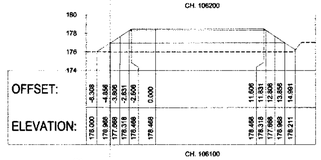


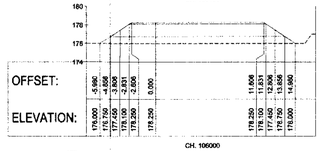


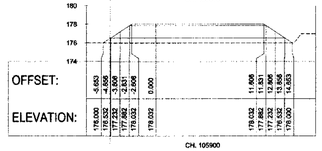


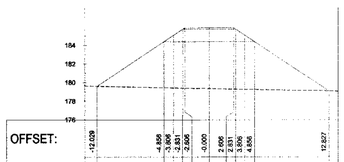


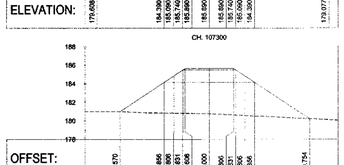


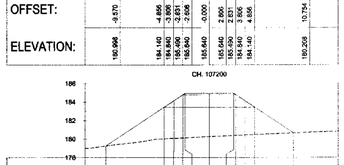


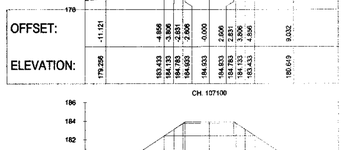


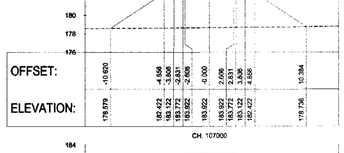


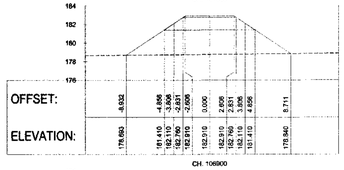


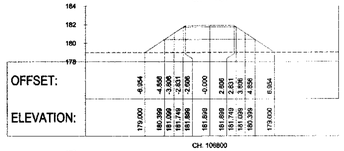


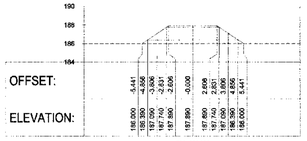


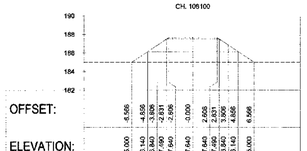


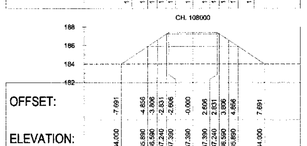


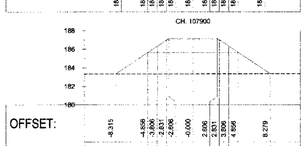


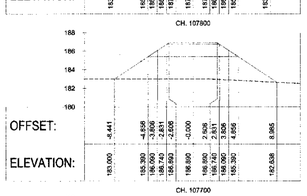


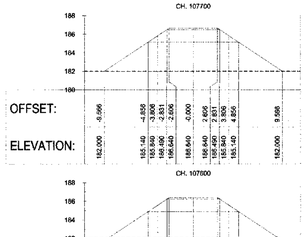


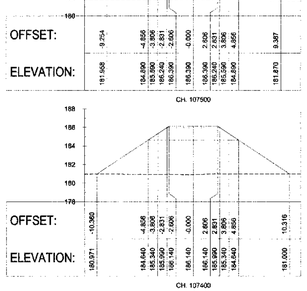












NOTE :

1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF **FORMATION WIDENING** AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL **DRAWINGS**) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0018-0001.

REFERENCE DRAWINGS	
DRAWING No.	DRAWING TITLE
H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW	WR	GM	2018/11/11

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REG. PROFESSIONAL

HATCH

DRAFTSPERSON	W RIDGARD		2018/11/11
DESIGNER	A VAN NIEKERK		2018/11/07
CHECKER	G JOHNSTONE		
DESIGN COORD.	F VAN BILJON		
RESP. ENG.	R HALIM		
LEAD DISC. ENGS.	F VAN BILJON		
AREA LEAD	F VAN BILJON		
ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 104400m TO 108100 m

SCALE	DWG. No.	REV
1:200 UNLESS NOTED	H353004-30000-224-273-0043-0001	A

SHEET SIZE: A0

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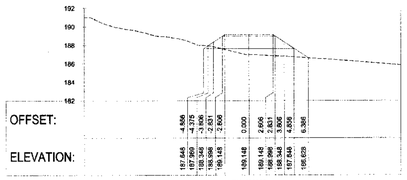
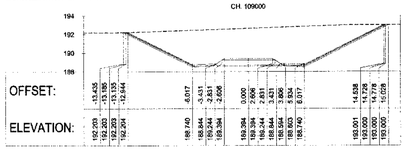
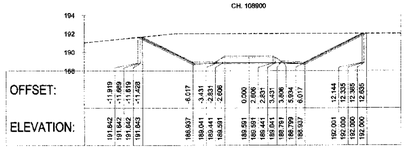
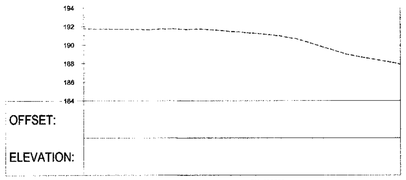
SEGMENTS
SCATES
SPLES
STAKES

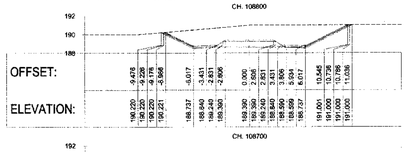
DWG No. H353004-30000-224-273-0044-0001

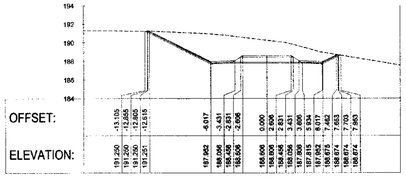


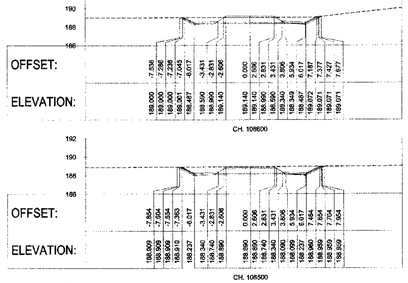


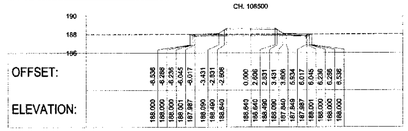


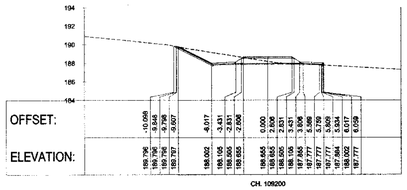


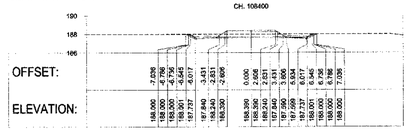


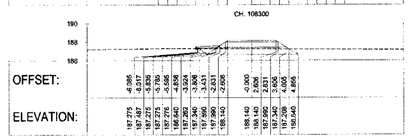


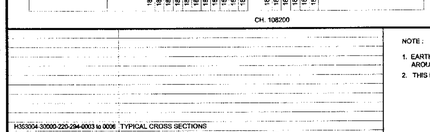


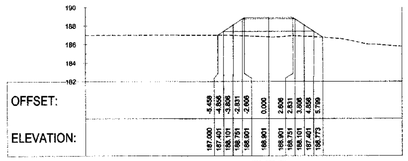












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Date
PERMIT NUMBER: P 512
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H353004-30000-220-294-0003 to 0006	TYPICAL CROSS SECTIONS
H353004-30000-224-273-0001 to 0025	FORMATION SECTIONS CH. 0.220km TO 109.660km
H353004-30000-224-271-0004 to 0027	LINE PLAN AND LONGGITUDINAL SECTION CH. 0.220km TO 109.660km
DRAWING No.	DRAWING TITLE

REFERENCE DRAWINGS

NOTE :
1. EARTHWORKS FOOTPRINT DOES NOT INDICATE EXTENT OF FORMATION WIDENING AROUND CURVES WHERE APPLICABLE (REFER TO TYPICAL DRAWINGS) .
2. THIS DRAWING SUPERSEDES PREVIOUS DRAWING H353004-00000-224-260-0018-0001.

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No.	DESCRIPTION	BY	CHK'D	DATE
A	INTERNAL / CLIENT REVIEW.	WR	GM	2018/11/11

REVISIONS

HATCH

DRAFTSPERSON	W RIDGARD	NR	2018/11/11
DESIGNER	A VAN MEIKERK	NR	2018/11/07
CHECKER	C JOHNSTONE		2018/11/14
DESIGN COORD.	F VAN BILJON		2018/11/14
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ENG. MANAGER	D STANGER		
AREA MANAGER	F PITTMAN		
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: INTERNAL / CLIENT REVIEW

Baffinland

BAFFINLAND IRON MINES LP
MARY RIVER PROJECT

RAIL SITE
FORMATION CROSS SECTIONS
CH. 108200m TO 109229 m

SCALE	DWG. No.	REV
1:200 (ON A0 PLOT)	H353004-30000-224-273-0044-0001	A

SHEET SIZE: A0

SOLUTIONS STYLES SPLES

1 2 3 4 5 6 7 8