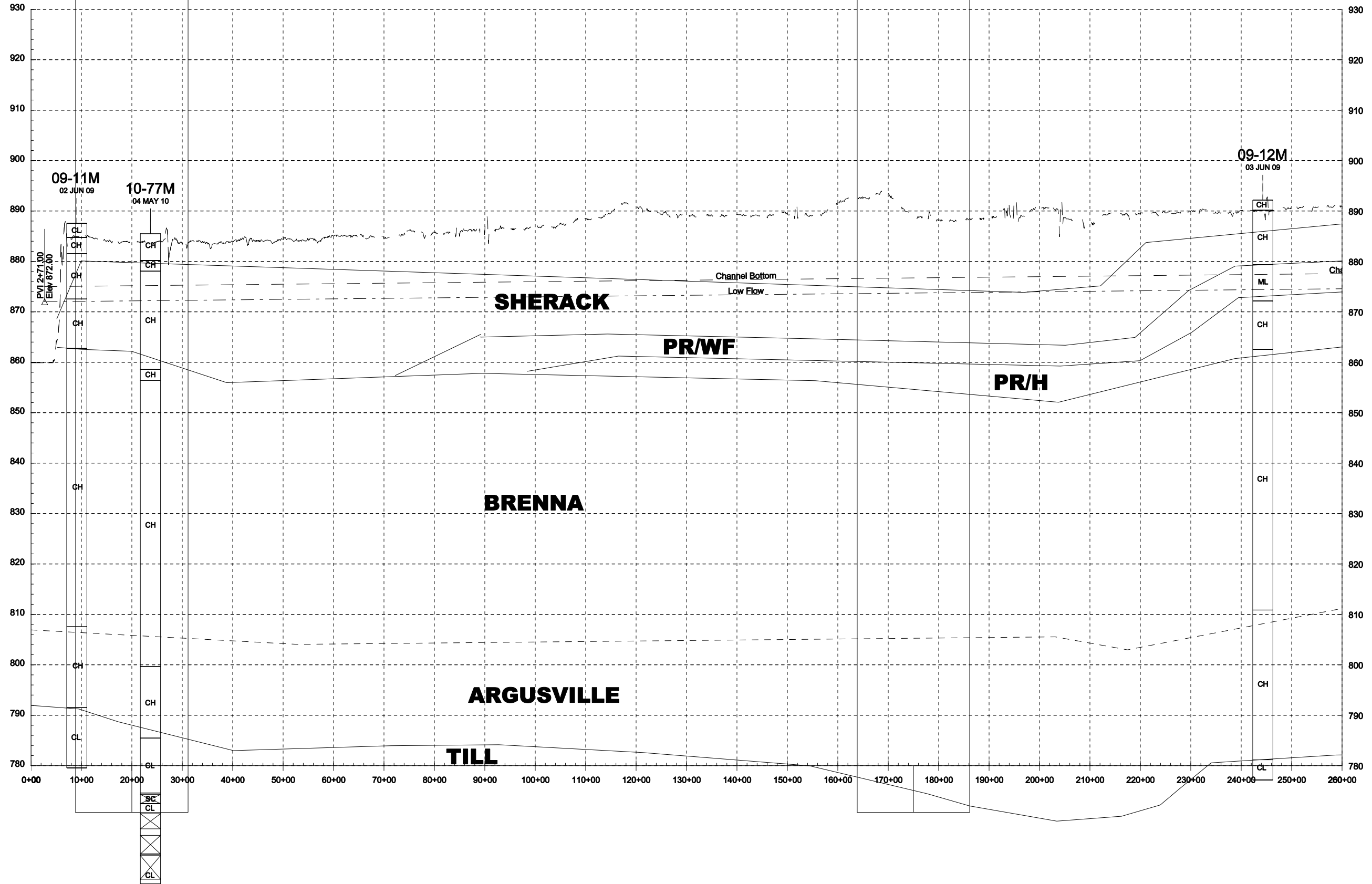


Attachment I-10: Diversion Channel Stratigraphy – Phase 3 & Phase 4

MN SECTION 1

MN SECTION 2

D
C
B
A



MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:	DATE:	DESIGNED BY:	DATE:
CHK BY:	CHK BY:	CHK BY:	CHK BY:
SUBMITTED BY:	SUBMITTED BY:	SUBMITTED BY:	SUBMITTED BY:
PLOT SCALE:	PLOT DATE:	PLOT SCALE:	PLOT DATE:
FILE NAME:	FILE NAME:	FILE NAME:	FILE NAME:
SIZE:	SIZE:	SIZE:	SIZE:

U.S. ARMY CORPS OF ENGINEERS	ST. PAUL DISTRICT	ST. PAUL, MINNESOTA
DESIGNED BY:	DATE:	DESIGNED BY:
CHK BY:	CHK BY:	CHK BY:
SUBMITTED BY:	SUBMITTED BY:	SUBMITTED BY:
PLOT SCALE:	PLOT DATE:	PLOT SCALE:
FILE NAME:	FILE NAME:	FILE NAME:
SIZE:	SIZE:	SIZE:

FARGO-MOORHEAD METRO FEASIBILITY STUDY	RED RIVER OF THE NORTH	FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN	MINNESOTA DIVERSION PROFILE	MINNESOTA DIVERSION STRATIGRAPHY

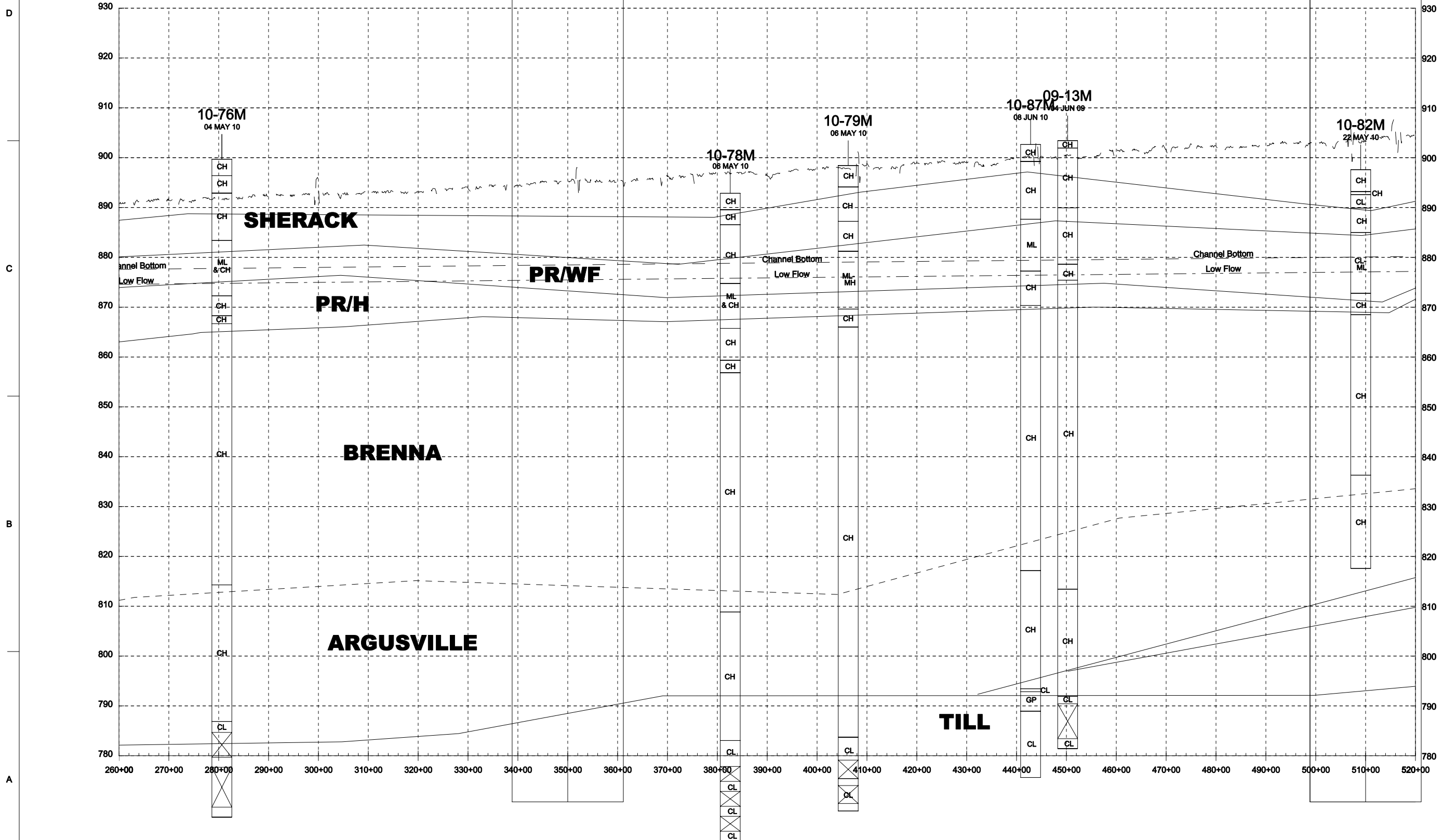
SHEET IDENTIFICATION	BS201
----------------------	-------

MN SECTION 2B

MN SECTION 3



US Army Corps
of Engineers
ST. PAUL DISTRICT



MARK	DESCRIPTION	DATE	APPR.	MARK	DATE	APPR.

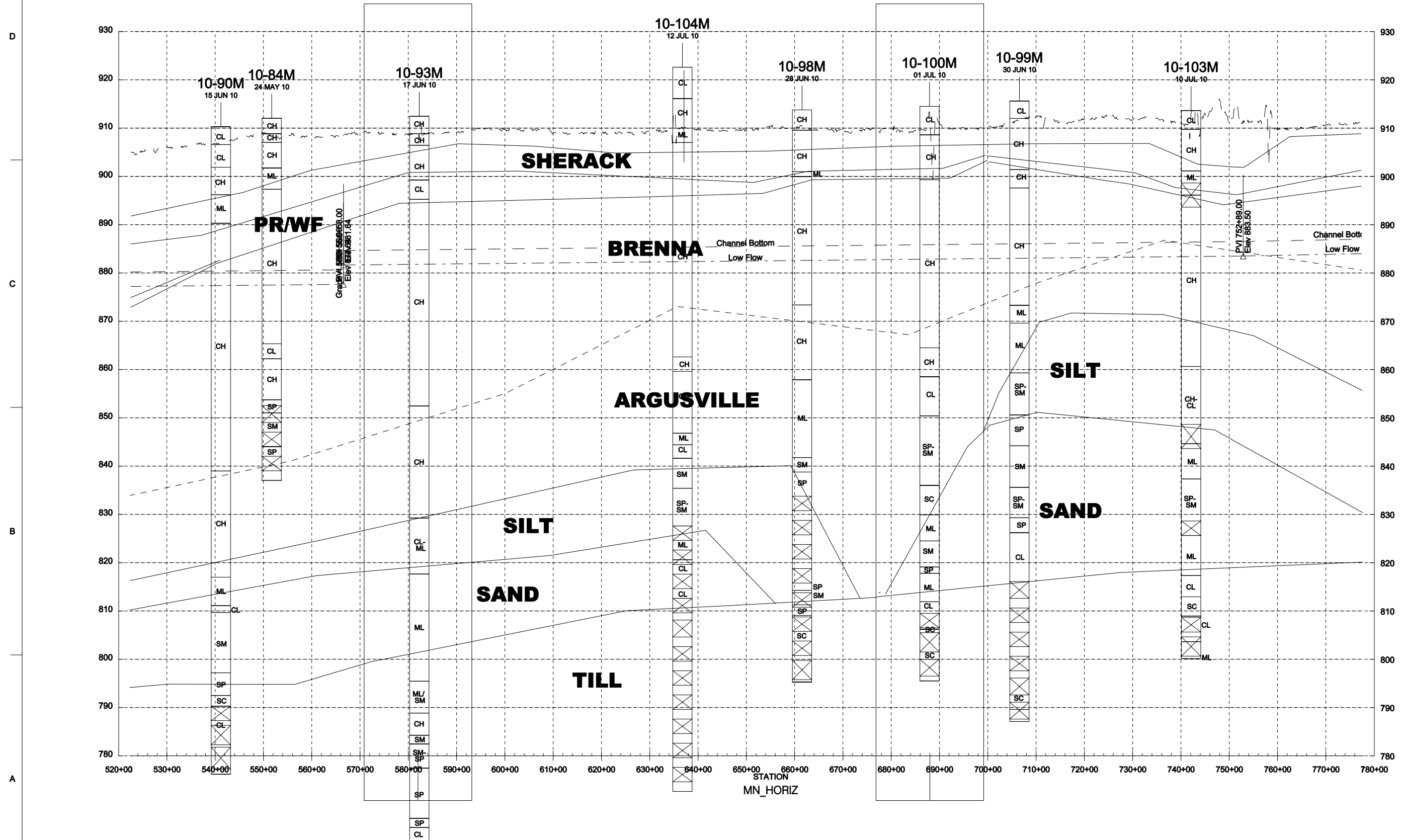
DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS ST. PAUL DISTRICT ST. PAUL, MINNESOTA	DATE: 05/18/10	SUBMITTED BY: KMH	CONTRACT NO.:	FILE NAME: F:\MFS_JMINDY_082010a.dgn
DESIGNED BY:	FILE NO.:	DESIGNED BY:	CONTRACT NO.:	FILE NAME:
DESIGNED BY:	FILE NO.:	DESIGNED BY:	CONTRACT NO.:	FILE NAME:
DESIGNED BY:	FILE NO.:	DESIGNED BY:	CONTRACT NO.:	FILE NAME:

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
MINNESOTA DIVERSION
MINNESOTA DIVERSION STRATIGRAPHY

SHEET
IDENTIFICATION
BS202

MN SECTION 4A

MN SECTION 4B



US Army Corps
of Engineers
ST. PAUL DISTRICT

MARK	DESCRIPTION	DATE	APPR. MARK	DATE	APPR.

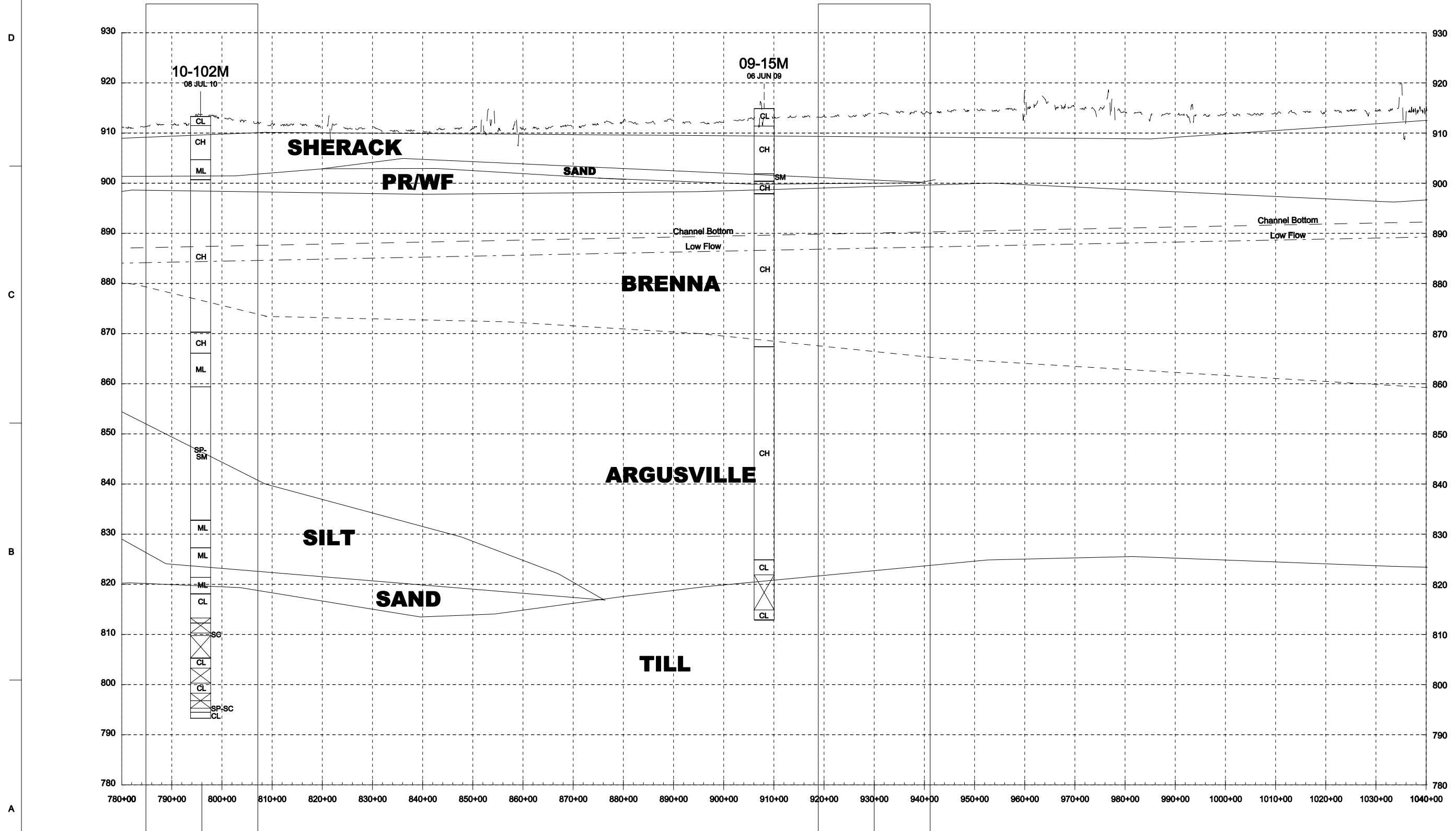
DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS	DATE: 07/10/10	CMD BY: KAI	SOLICITATION NO.:
DRAWN BY:	FILE NAME: F:\MIS\INDV\2010\04-03.dgn	SUBMITTED BY:	CONTRACT NO.:
ST. PAUL DISTRICT	SIZE:	PLOT SCALE:	FILE NUMBER:
ST. PAUL, MINNESOTA		NO.:	

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
MINNESOTA DIVERSION
MINNESOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS203

MN SECTION 5B

MN SECTION 6



US Army Corps of Engineers
ST. PAUL DISTRICT

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: KAY	CHKD BY: KAY	DATE: 06/06/09	SOLICITATION NO.:	CONTRACT NO.:
FILE NAME: F:\M\F\5_102M_080710.dgn	FILE NUMBER:	FILE SIZE:		

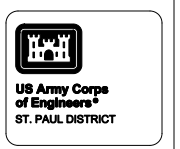
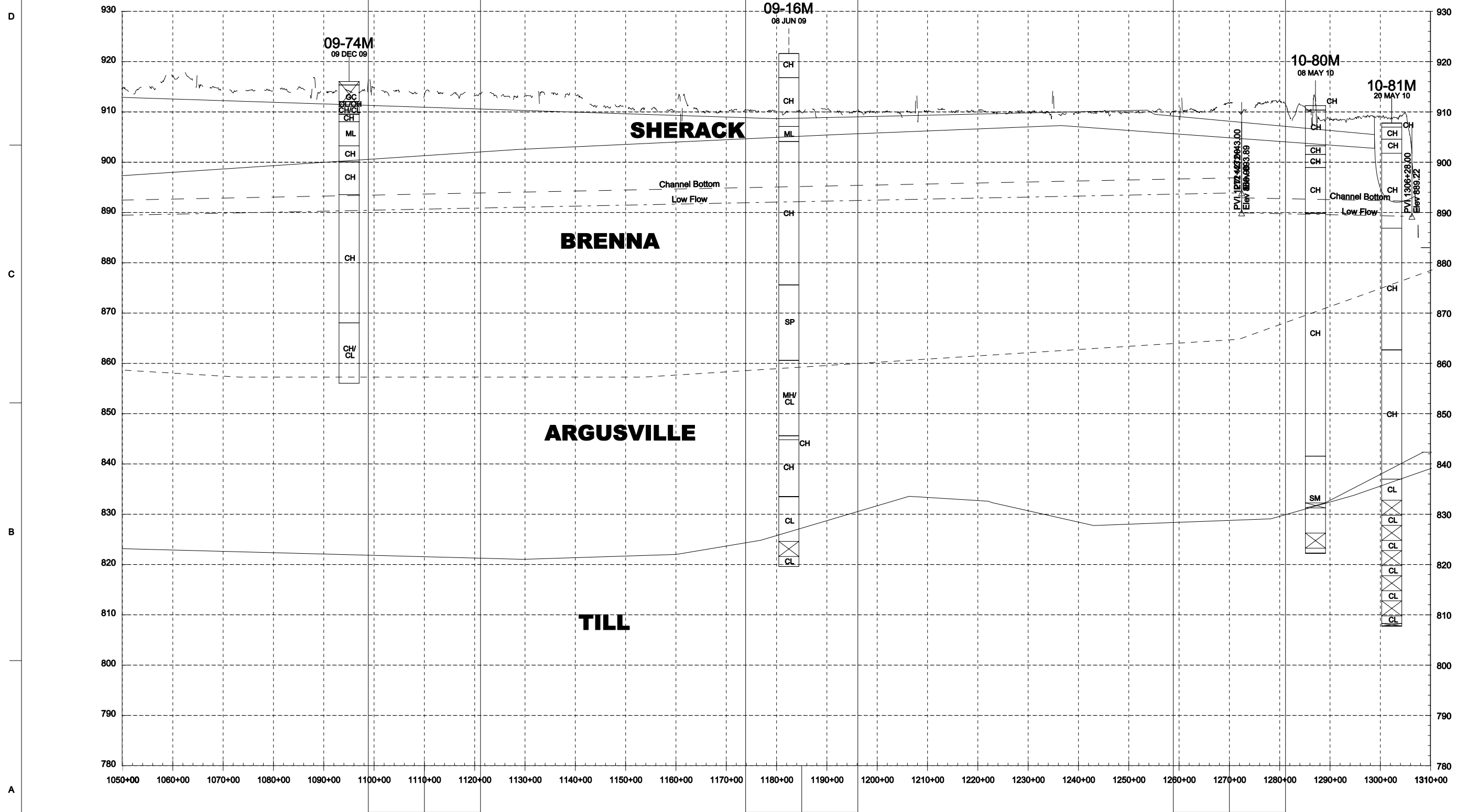
FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
MINNESOTA DIVERSION
MINNESOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS204

MN SECTION 7

MN SECTION 7B

MN SECTION 8



MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS ST. PAUL DISTRICT ST. PAUL, MINNESOTA	DESIGNED BY:	DATE:	SUBMITTAL NO.:
	DRAWN BY:	CHK BY:	SOLICITATION NO.:
	SUBMITTED BY:	FILE NAME:	CONTRACT NO.:
	PLOT SCALE:	PLOT DATE:	FILE NUMBER:
STRATIGRAPHY PROFILE MINNESOTA DIVERSION		SIZE:	
MINNESOTA DIVERSION STRATIGRAPHY		FILE NAME: F:\MFS_JM\INDV_022008.dgn	

FARGO-MOORHEAD METRO FEASIBILITY STUDY RED RIVER OF THE NORTH FARGO NORTH DAKOTA, MOORHEAD MINNESOTA MOORHEAD, MN	STRATIGRAPHY PROFILE MINNESOTA DIVERSION MINNESOTA DIVERSION STRATIGRAPHY
--	---

SHEET IDENTIFICATION
BS205



Fargo-Moorhead Metro Feasibility Study

Phase 3 Diversion Modeling Configuration

Compiled By: KAH

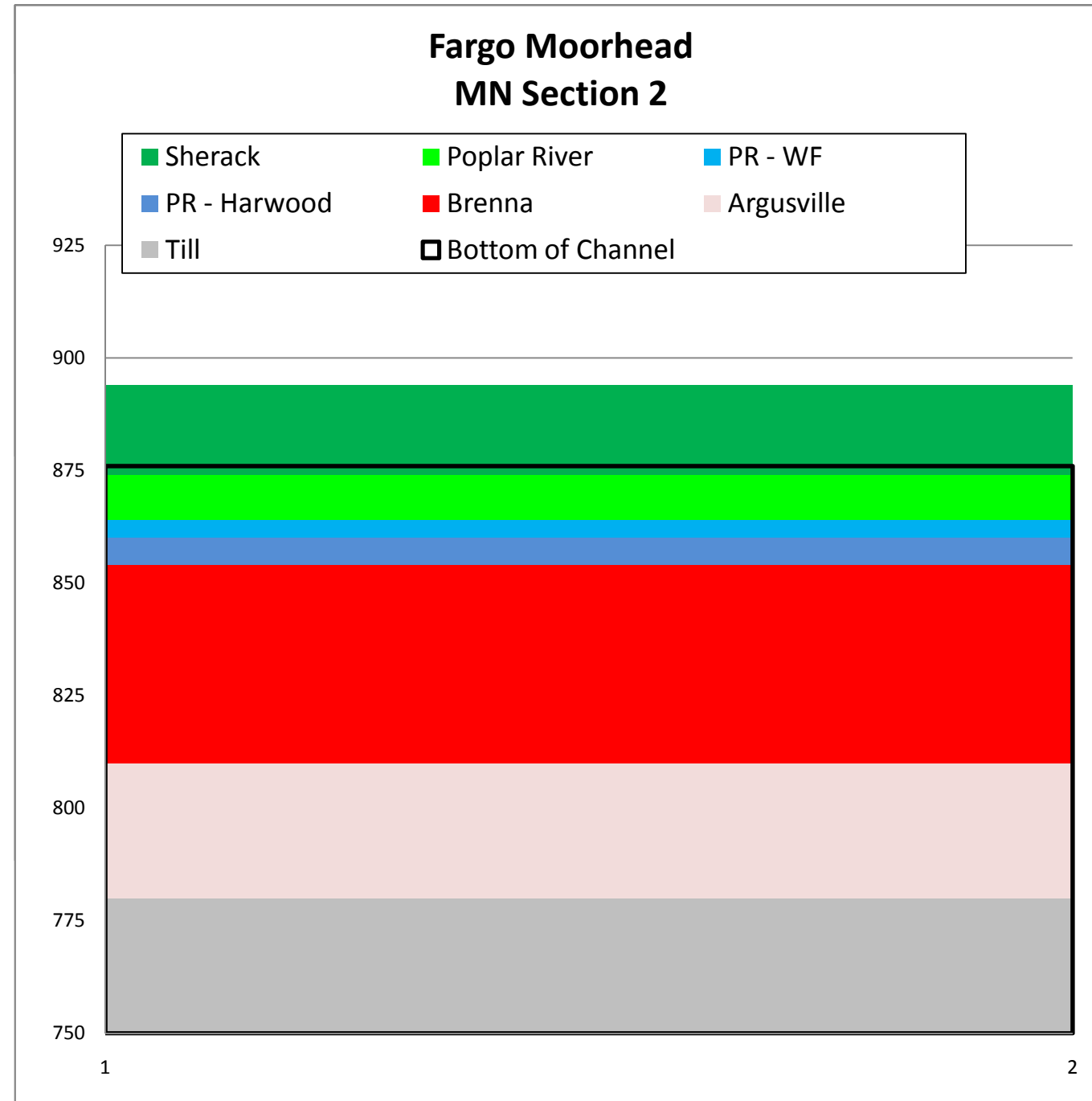
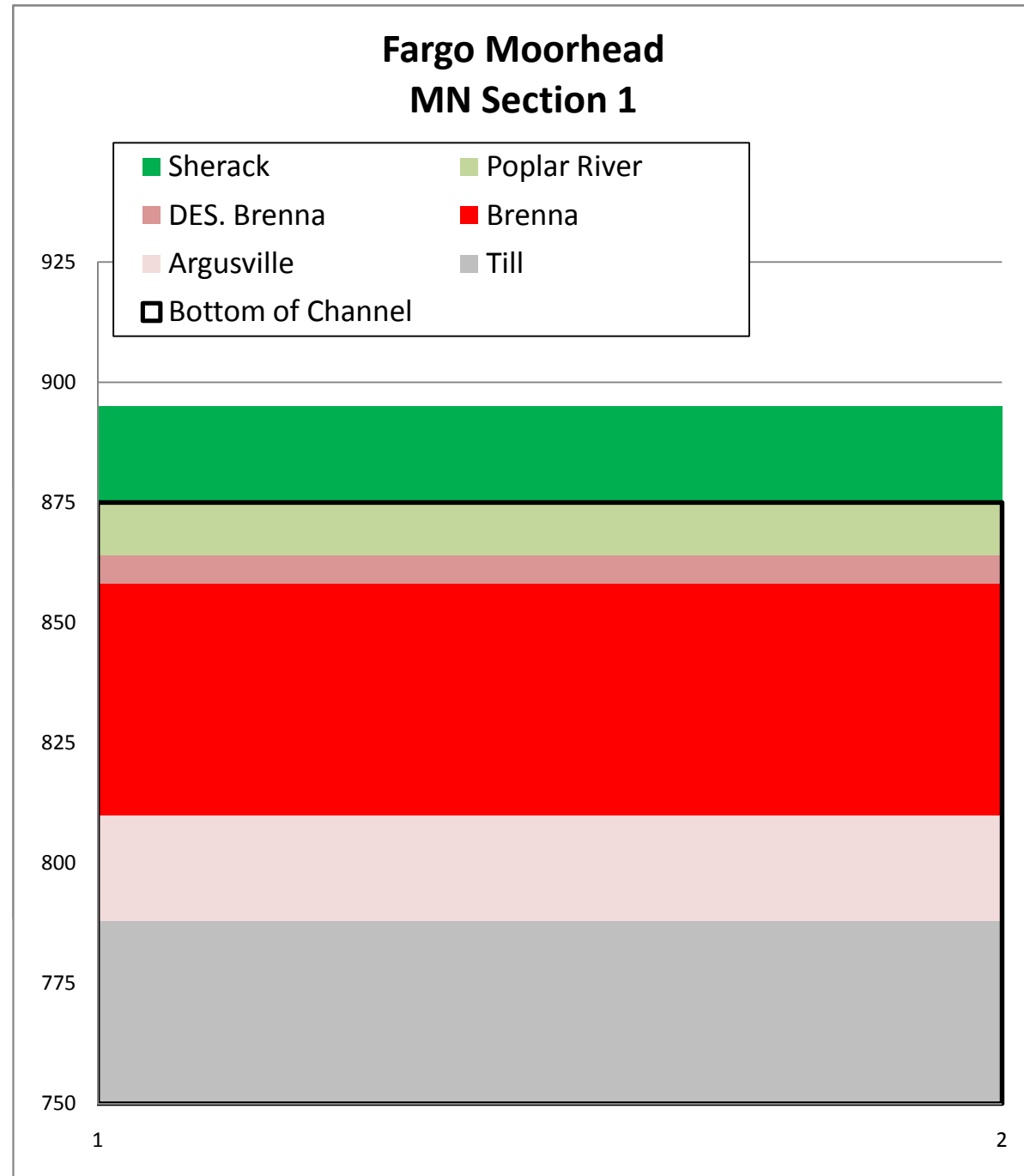
Revised By: KAH

Date: 30-Apr-10

Date: 12-Jul-10

Sherack	Poplar River	DES. Brenna	Brenna	Argusville	Till	Bottom of Channel
895	875	864	858	810	788	875
895	875	864	858	810	788	875

Sherack	Poplar River	PR - WF	PR - Harwood	Brenna	Argusville	Till	Bottom of Channel
894	874	864	860	854	810	780	876
894	874	864	860	854	810	780	876





Fargo-Moorhead Metro Feasibility Study

Phase 3 Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Apr-10

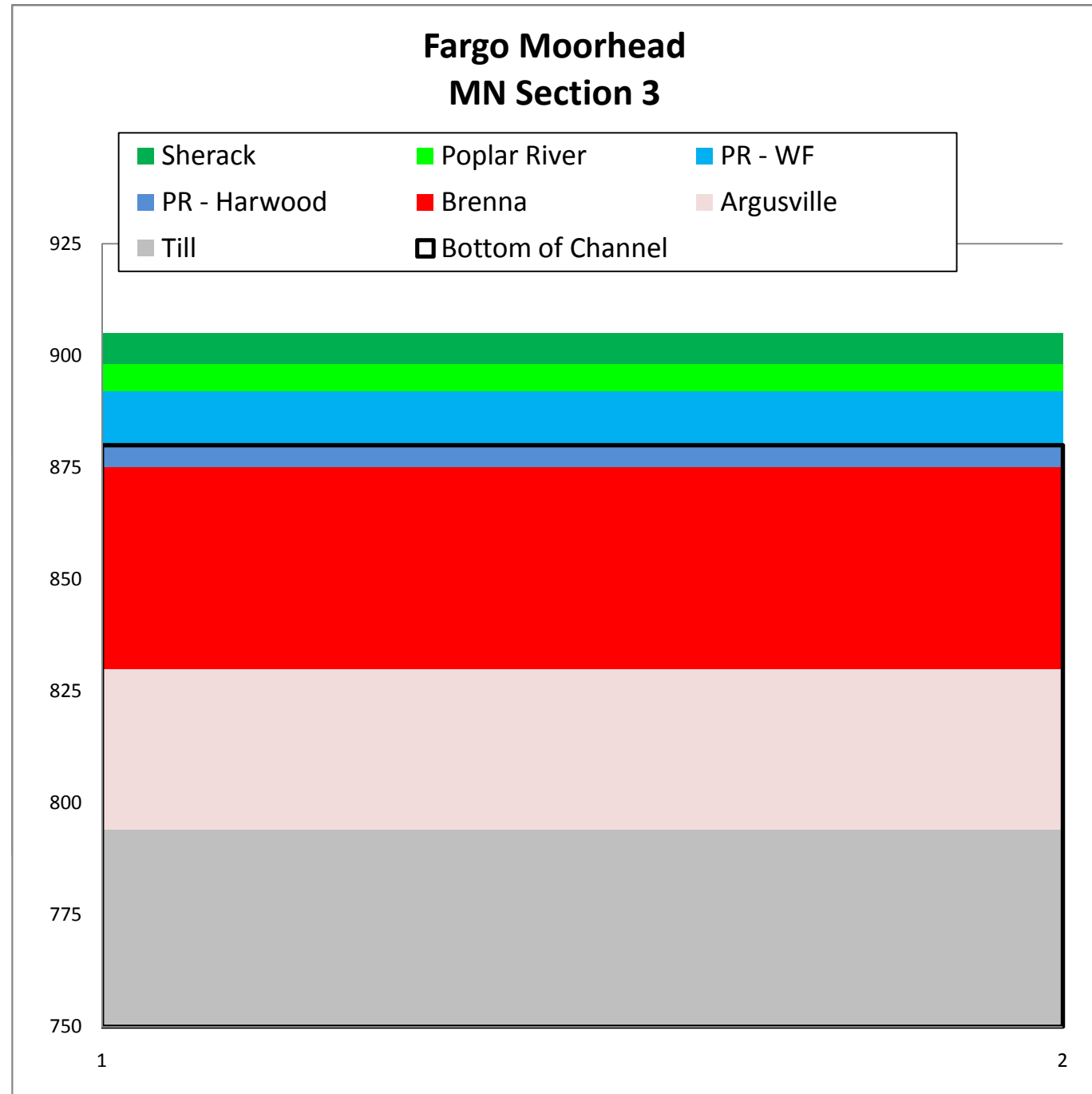
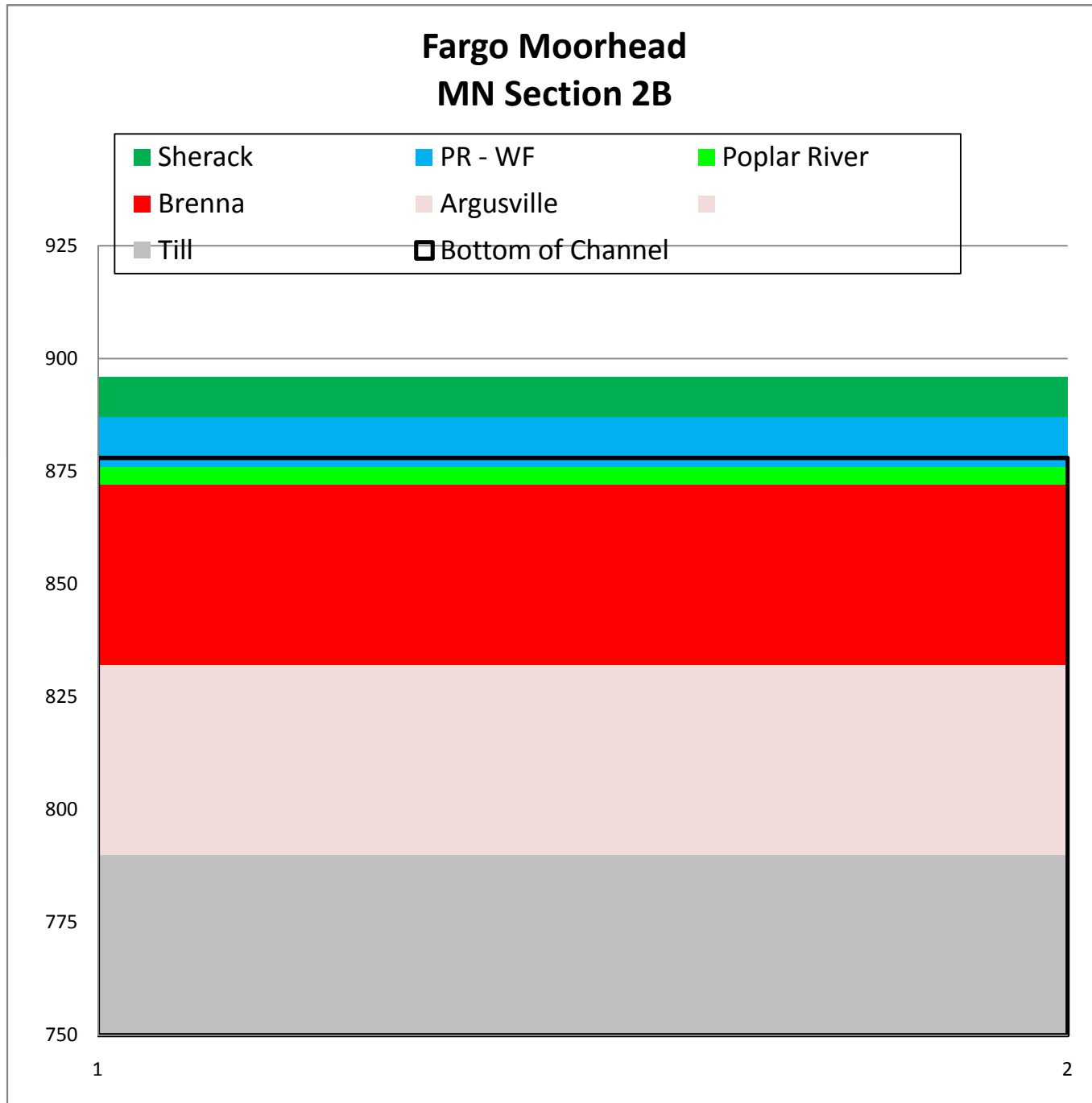
Date: 12-Jul-10

MN Section 2B

Sherack	PR - WF	Poplar River	Brenna	Argusville		Till	Bottom of Channel
896	887	876	872	832		790	878
896	887	876	872	832	0	790	878

MN Section 3

Sherack	Poplar River	PR - WF	PR - Harwood	Brenna	Argusville	Till	Bottom of Channel
905	898	892	880	875	830	794	880
905	898	892	880	875	830	794	880





Fargo-Moorhead Metro Feasibility Study

Phase 3 Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Apr-10

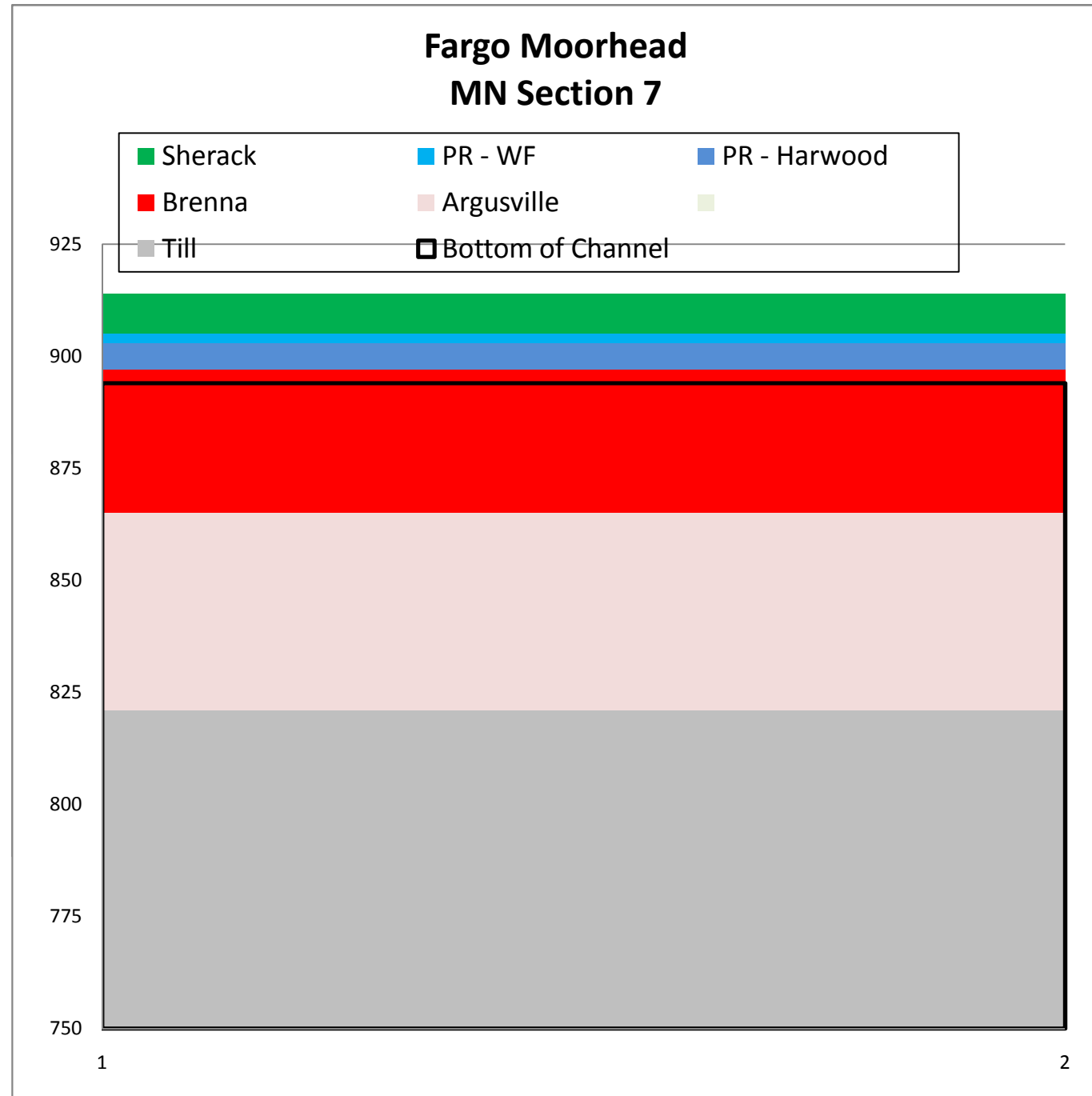
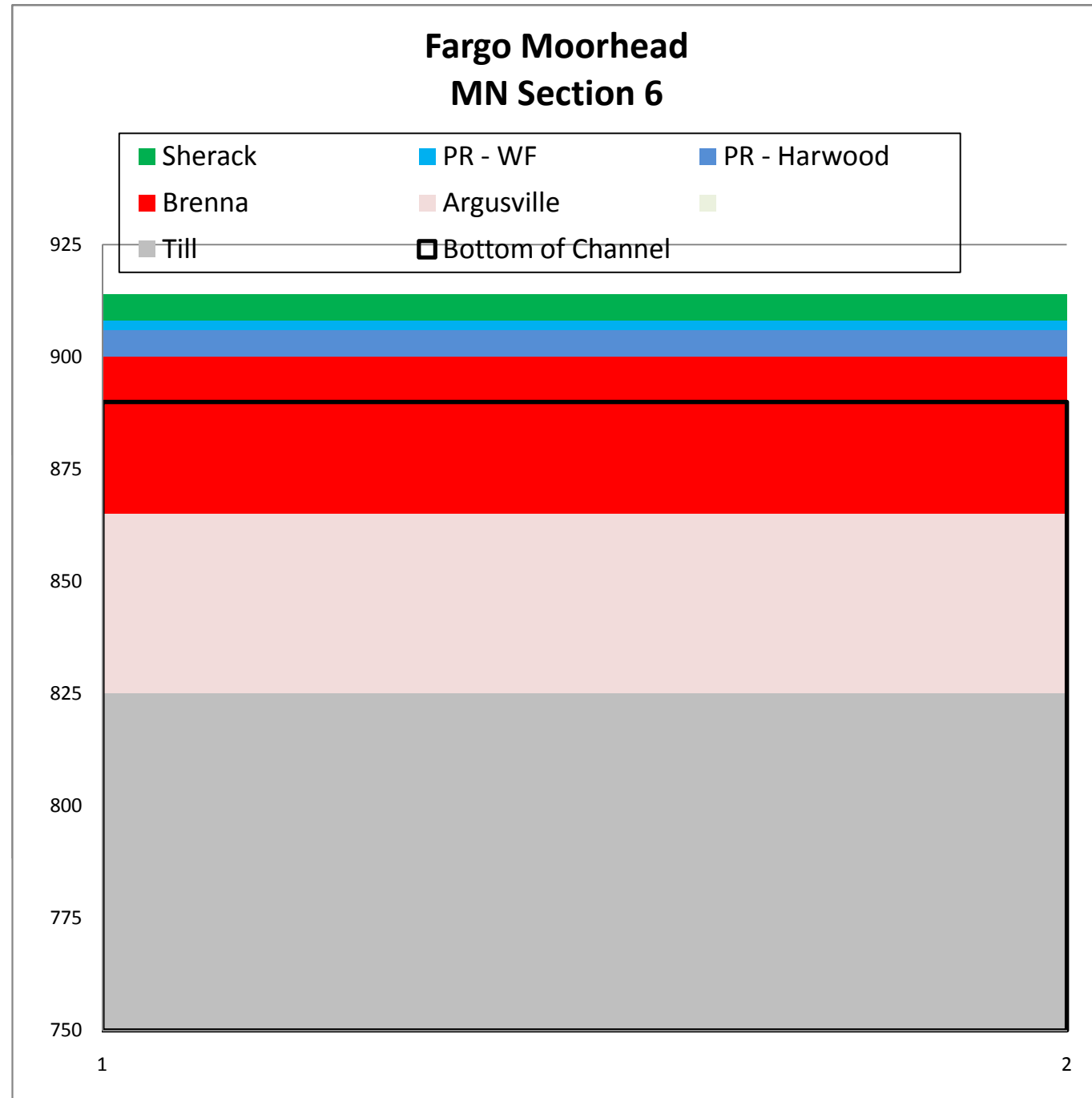
Date: 12-Jul-10

MN Section 6

Sherack	PR - WF	PR - Harwood	Brenna	Argusville		Till	Bottom of Channel
914	908	906	900	865		825	890
914	908	906	900	865		825	890

MN Section 7

Sherack	PR - WF	PR - Harwood	Brenna	Argusville		Till	Bottom of Channel
914	905	903	897	865		821	894
914	905	903	897	865		821	894





Fargo-Moorhead Metro Feasibility Study

Phase 3 Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Apr-10

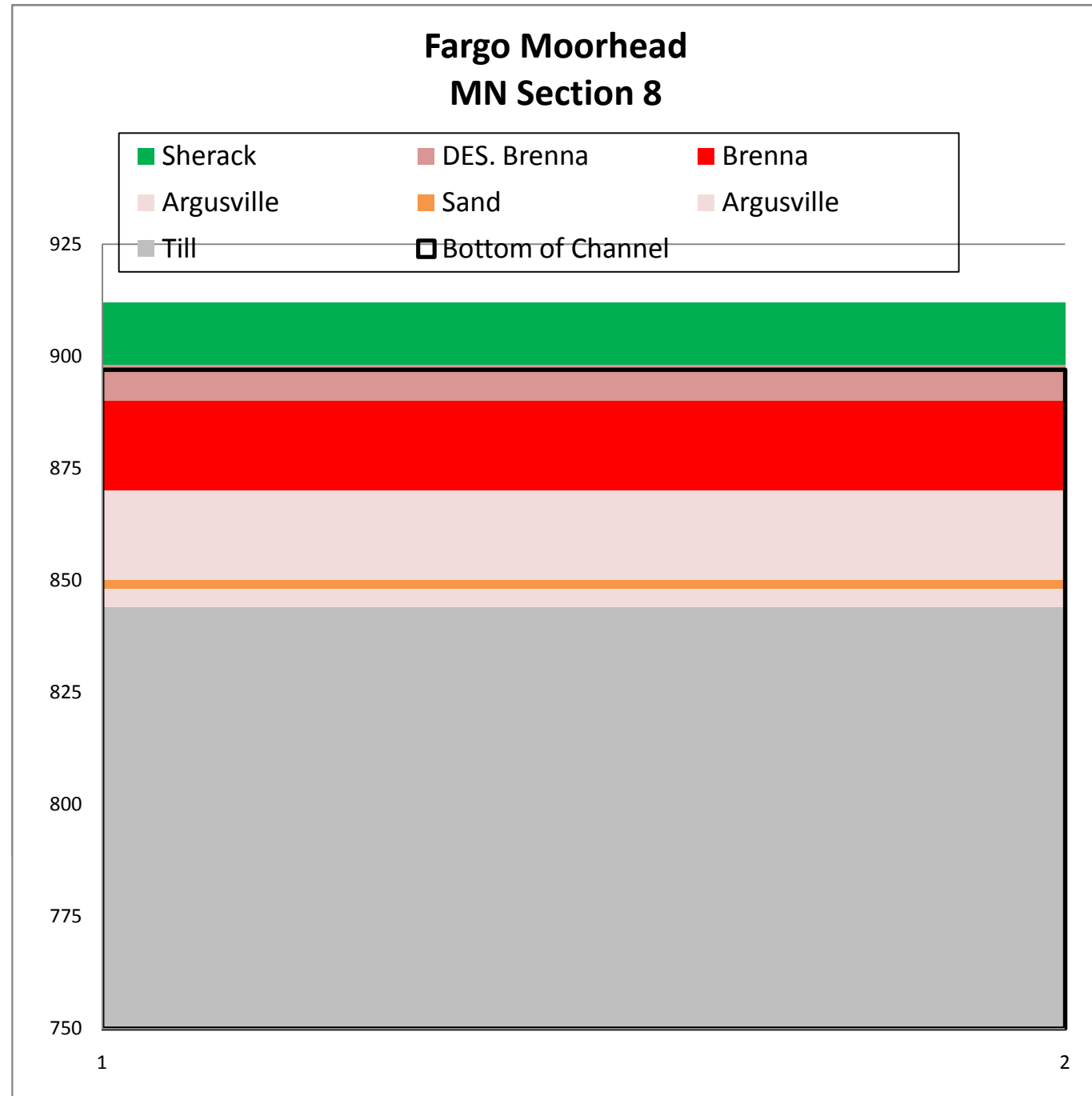
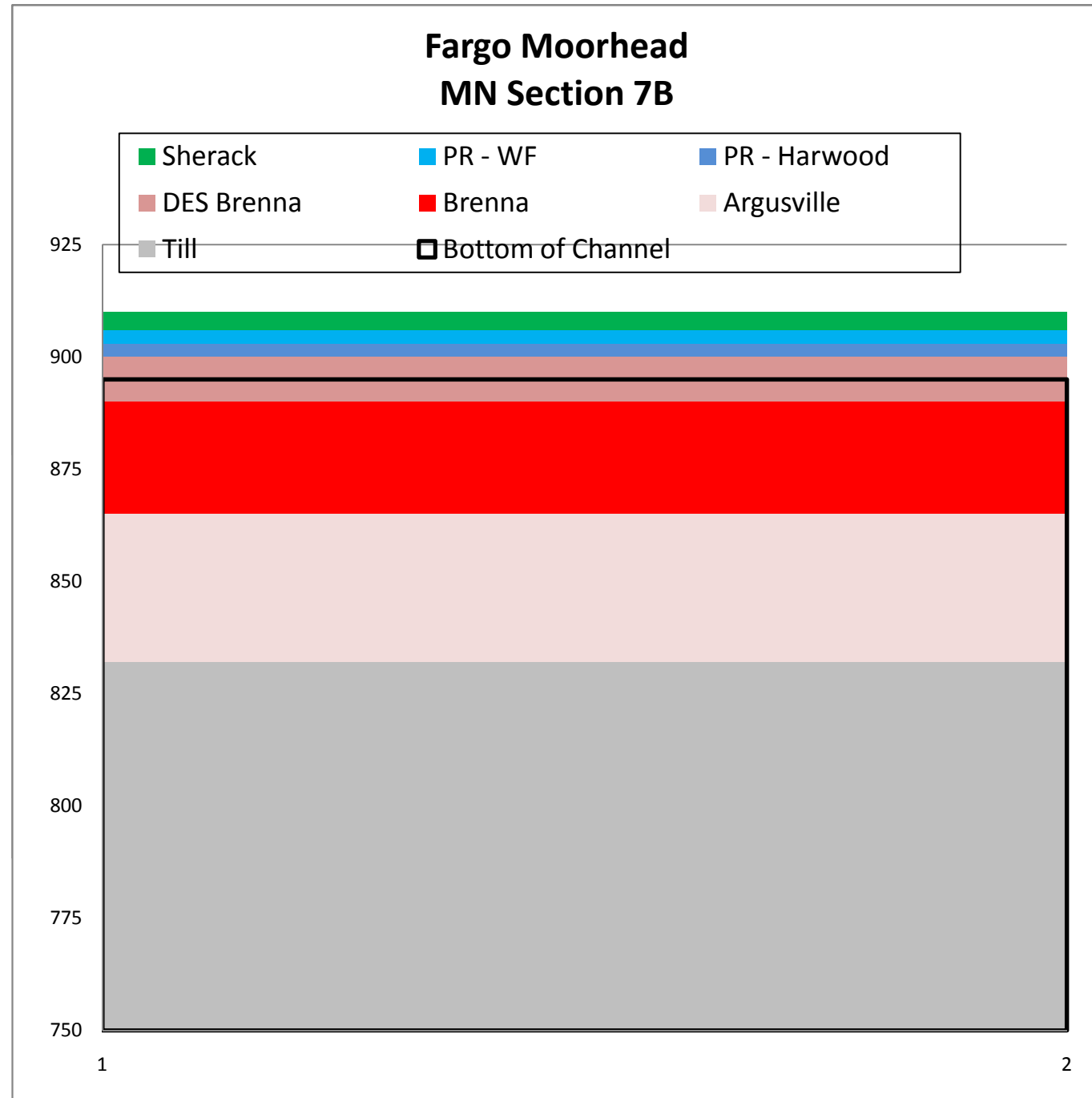
Date: 12-Jul-10

MN Section 7B

Sherack	PR - WF	PR - Harwood	DES Brenna	Brenna	Argusville	Till	Bottom of Channel
910	906	903	900	890	865	832	895
910	906	903	900	890	865	832	895

MN Section 8

Sherack	DES. Brenna	Brenna	Argusville	Sand	Argusville	Till	Bottom of Channel
912	898	890	870	850	848	844	897
912	898	890	870	850	848	844	897





Fargo-Moorhead Metro Feasibility Study

Phase 3 Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Apr-10

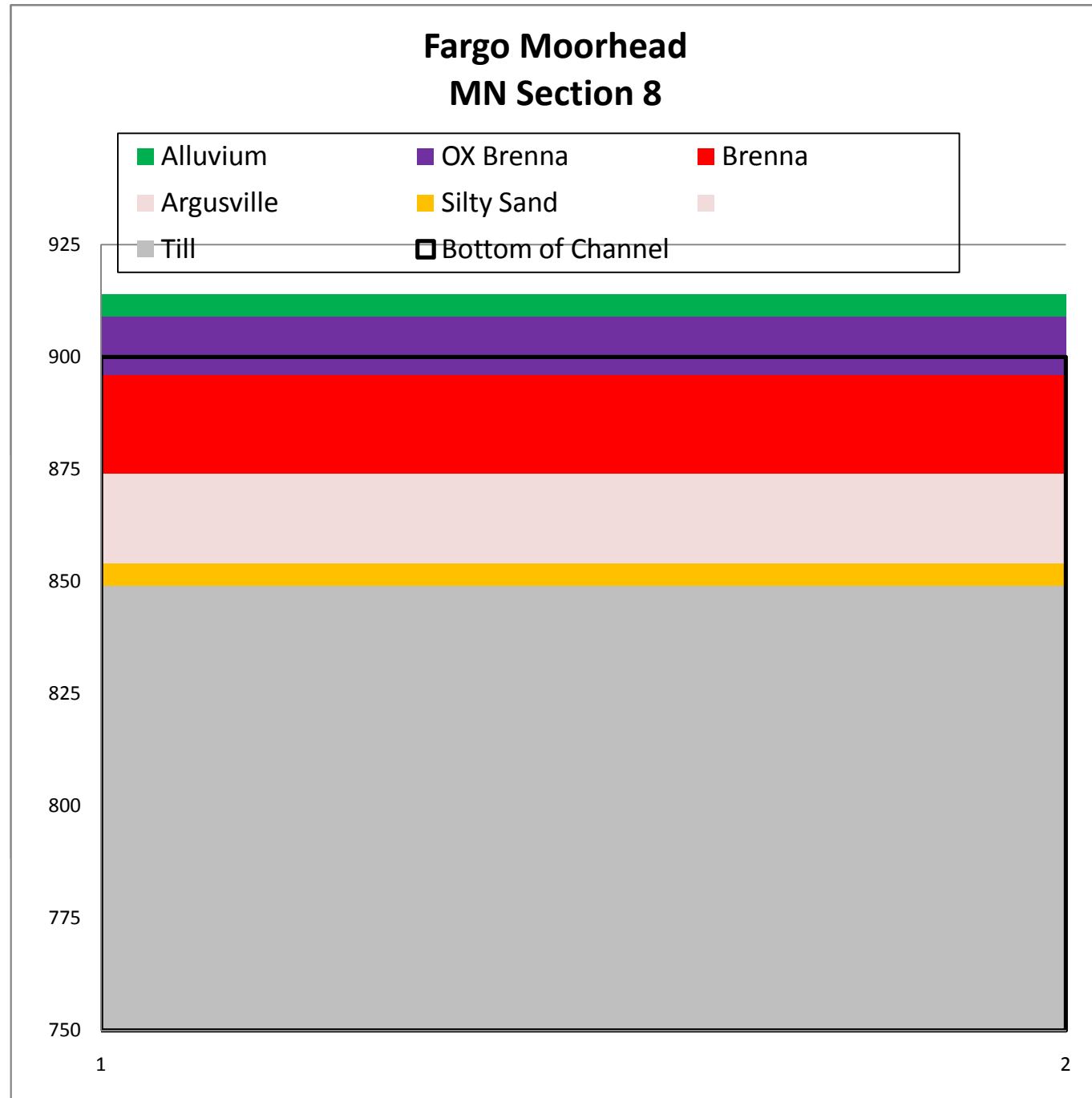
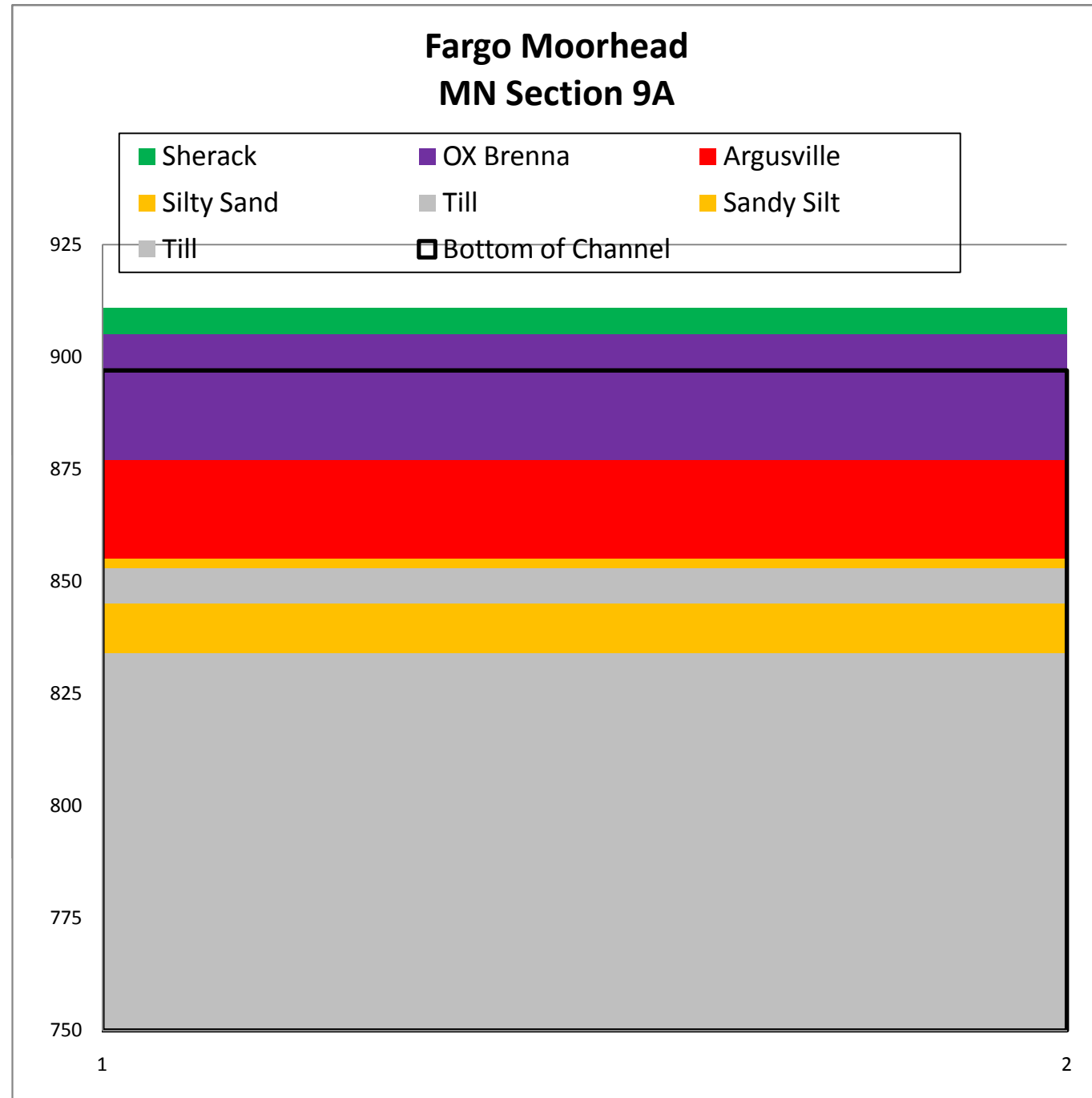
Date: 12-Jul-10

MN Section 9A

Sherack	OX Brenna	Argusville	Silty Sand	Till	Sandy Silt	Till	Bottom of Channel
911	905	877	855	853	845	834	897
911	905	877	855	853	845	834	897

MN Section 9B

Alluvium	OX Brenna	Brenna	Argusville	Silty Sand		Till	Bottom of Channel
914	909	896	874	854		849	900
914	909	896	874	854		849	900



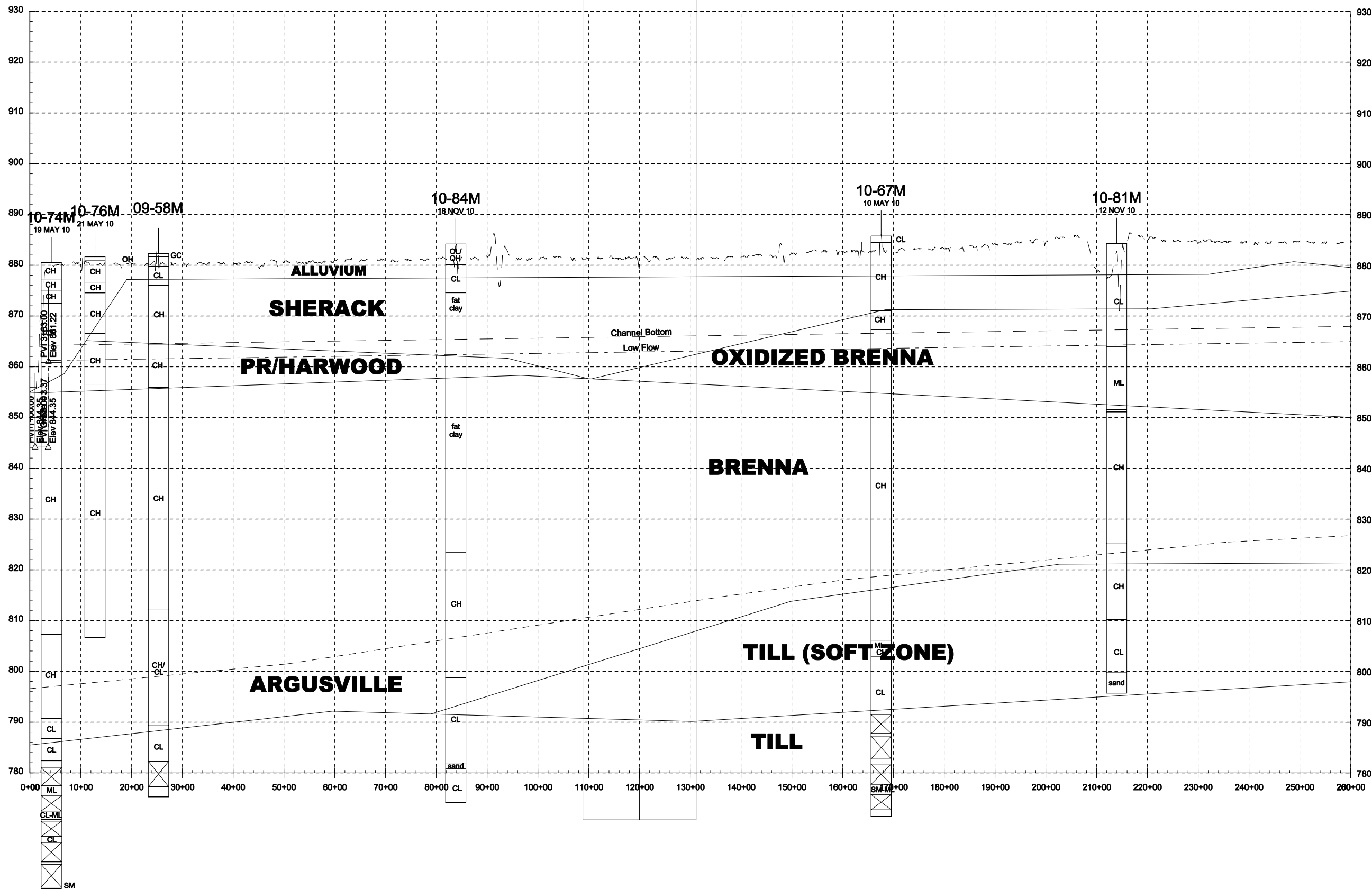
ND SECTION 1

D

C

B

A



US Army Corps
of Engineers
ST. PAUL DISTRICT

DATE	DESCRIPTION	APPR.	DATE	DESCRIPTION	APPR.

DESIGNED BY: KMH	DATE: 20/10/2014	SOLICITATION NO.:	CONTRACT NO.:
DESIGNED BY: KMH	DATE: 20/10/2014	FILE NAME: F:\MFRS_NDDIV_20140804.dgn	FILE NUMBER:
DESIGNED BY: KMH	DATE: 20/10/2014	FILE NAME:	FILE NUMBER:
DESIGNED BY: KMH	DATE: 20/10/2014	FILE NAME:	FILE NUMBER:

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET
IDENTIFICATION
BS206

1

2

3

4

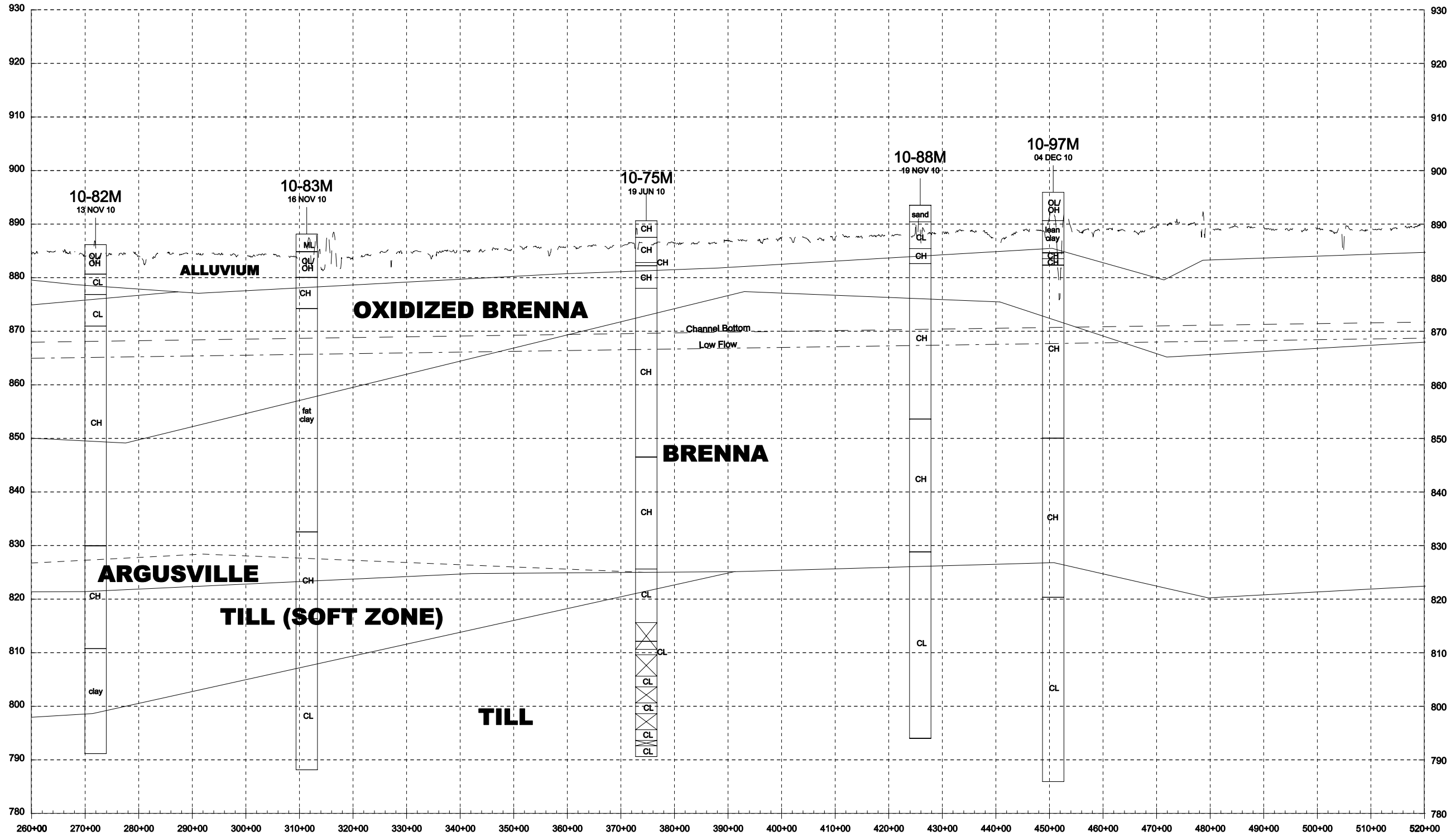
5

D

C

B

A



US Army Corps of Engineers ST. PAUL DISTRICT

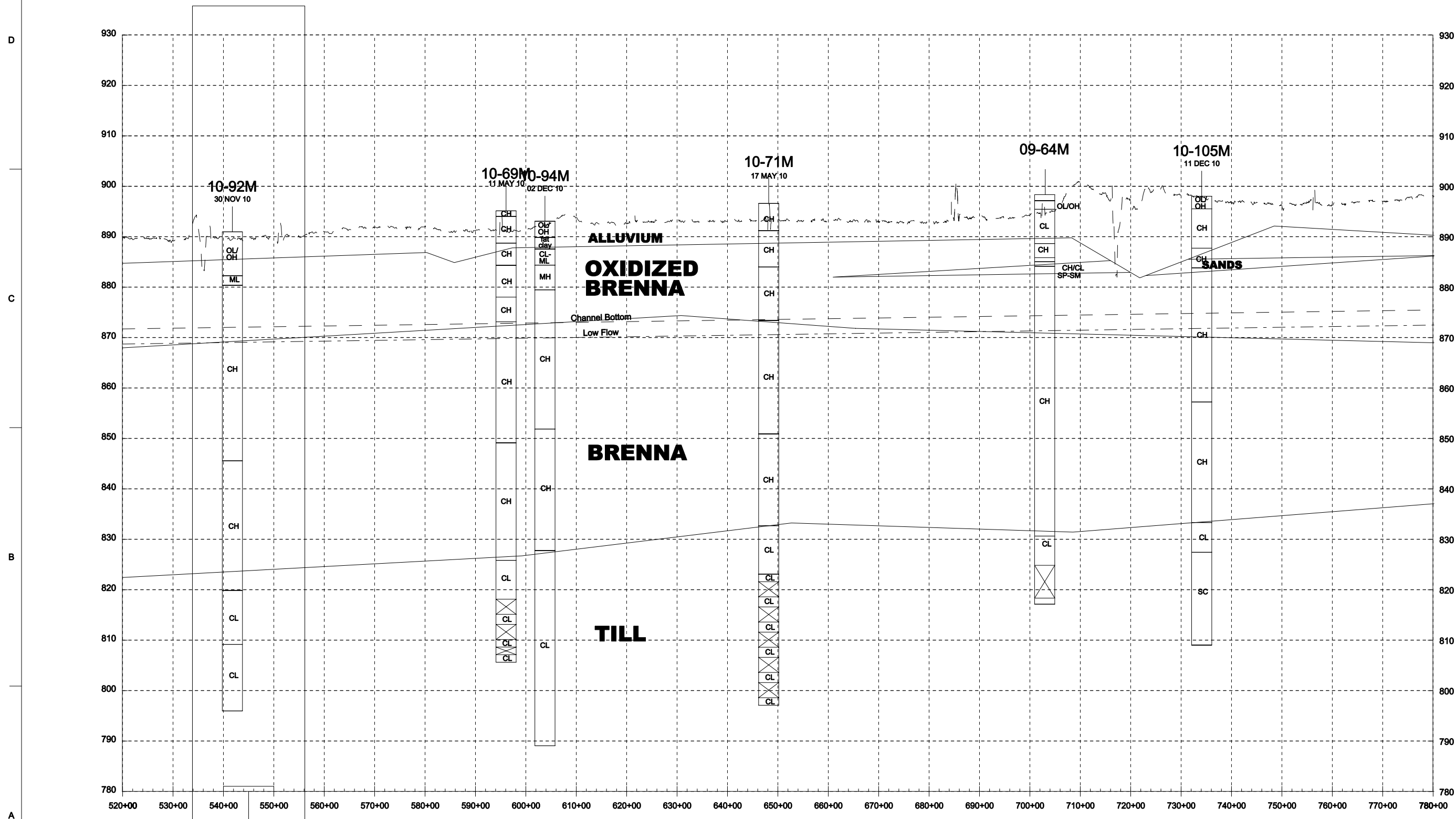
MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:	DATE:	SUBMITTAL NO.:
CHK BY:	10/18/10	10-82M
SUBMITTED BY:	CHK BY:	CONTRACT NO.:
PLOT SCALE:	PLOT DATE:	FILE NUMBER:
SIZE:	FILE NAME:	

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION **BS207**

ND SECTION 2



MARK	DESCRIPTION	DATE	APPR.

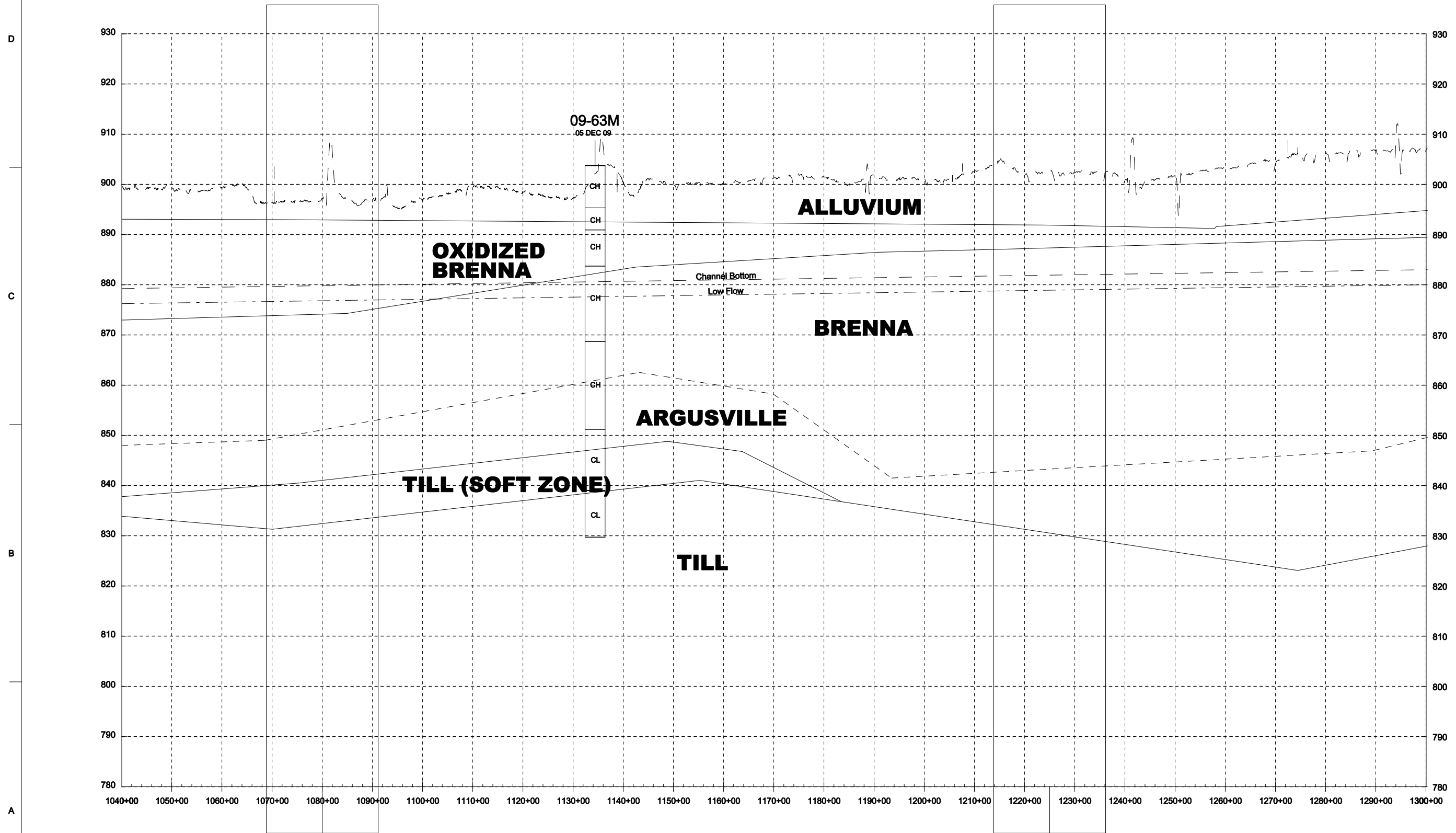
DESIGNED BY: JAH	DATE: 04/11/10	DESIGNED BY: JAH	DATE: 04/11/10
FORN BY: JAH	SUBMITTED BY: JAH	FORN BY: JAH	SUBMITTED BY: JAH
FILE NO: 	CONTRACT NO: 	FILE NO: 	CONTRACT NO:
FILE NAME: F:\MFRS_NDDV_Des2008.dgn	FILE NAME: 	FILE NAME: 	FILE NAME:

FARGO-MOORHEAD METRO FEASIBILITY STUDY
 RED RIVER OF THE NORTH
 FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
 MOORHEAD, MN
 STRATIGRAPHY PROFILE
 NORTH DAKOTA DIVERSION
 NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS208

ND SECTION 4

ND SECTION 5



DATE	DESCRIPTION	APPR.

DESIGNED BY:	DATE:	SUBMITTED BY:	NO.:
	05/18/04		

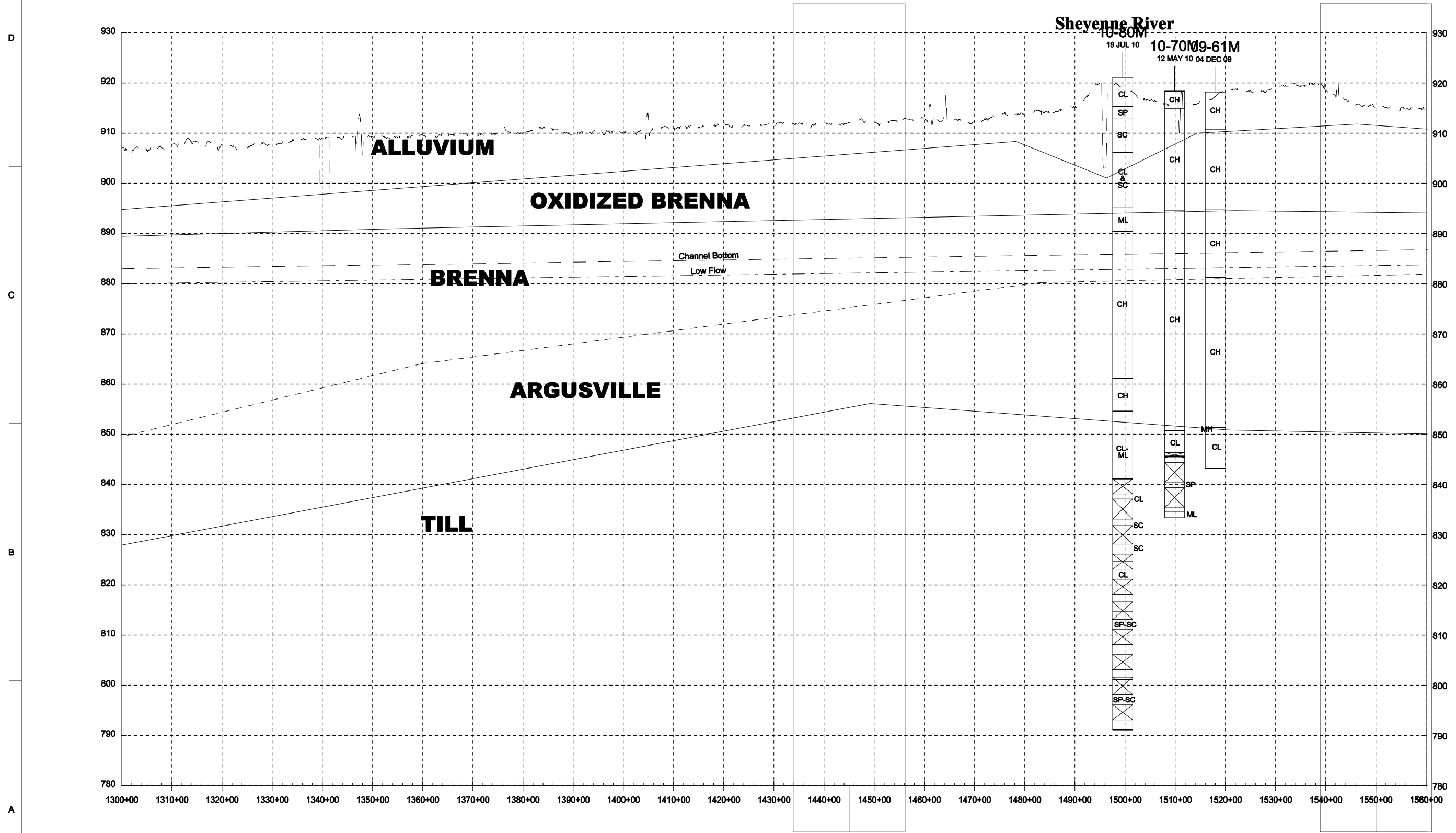
U.S. ARMY CORPS OF ENGINEERS
ST. PAUL DISTRICT
ST. PAUL, MINNESOTA

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS210

ND SECTION 5B

ND SECTION 6B



MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS ST. PAUL DISTRICT ST. PAUL, MINNESOTA	DATE: 05/10/2014	SOLICITATION NO.:	CONTRACT NO.:
DRAWN BY: MAH	CHKD BY:	FILE NO.:	FILE NUMBER:
SUBMITTED BY:	PLOT SCALE:	PLOT DATE:	FILE NAME:
SIZE:	FILE NAME:	FILE NUMBER:	FILE NUMBER:

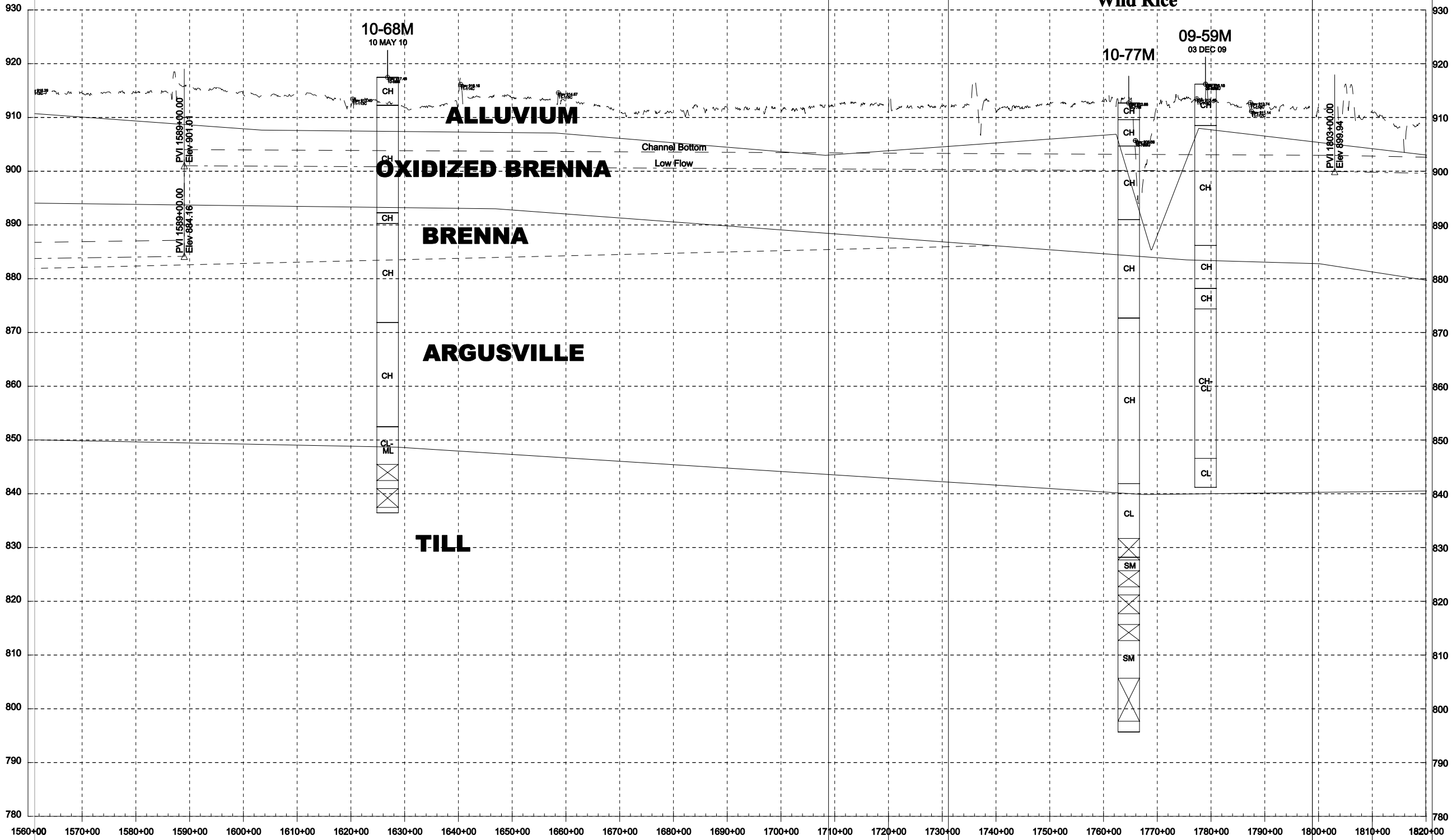
FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS211

ND SECTION 6C

ND SECTION 7

D
C
B
A



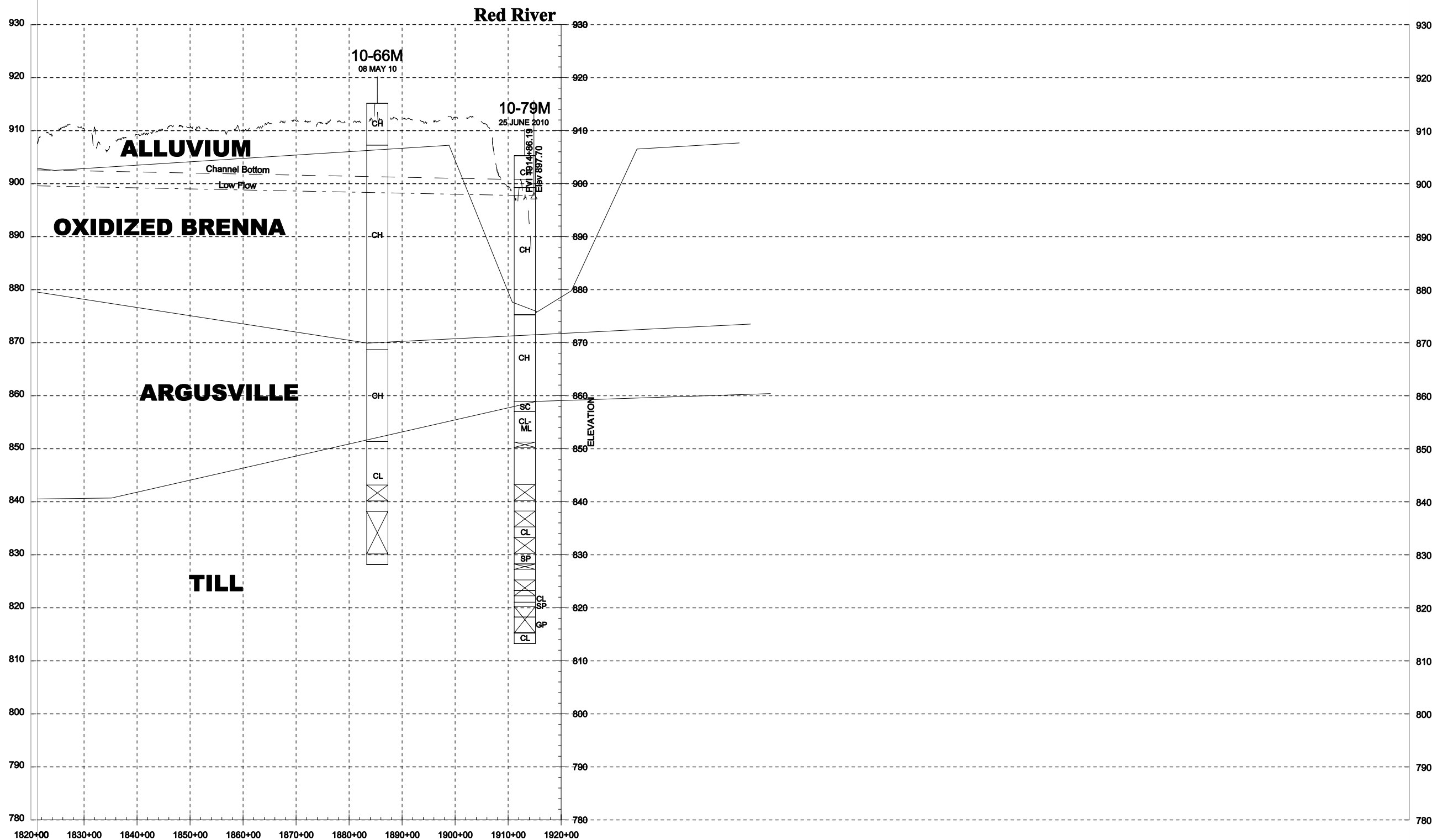
MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS ST. PAUL DISTRICT ST. PAUL, MINNESOTA	DATE: 05/15/2014	SOLICITATION NO.:	CONTRACT NO.:
DRAWN BY: MAH	CHKD BY:	PLLOT SCALE:	FILE NAME: F:\M\F\J\NDIVL_022100a.dgn
SUBMITTED BY:	PLLOT DATE:	FILE NUMBER:	
	No.:		
	SIZE:		

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN
STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS212

D
C
B
A



DATE	DESCRIPTION	APPR.

DESIGNED BY: DATE: 2/17/2014

U.S. ARMY CORPS OF ENGINEERS
ST. PAUL DISTRICT
ST. PAUL, MINNESOTA

FORN BY: CWD BY: SOLICITATION NO:

1541

SUBMITTED BY: CONTRACT NO:

PLOT SCALE: PLOT DATE: FILE NUMBER:

NO: FILE NAME:

SIZE: F:\MFS_JDDV_082100.dgn

FARGO-MOORHEAD METRO FEASIBILITY STUDY
RED RIVER OF THE NORTH
FARGO NORTH DAKOTA, MOORHEAD MINNESOTA
MOORHEAD, MN

STRATIGRAPHY PROFILE
NORTH DAKOTA DIVERSION
NORTH DAKOTA DIVERSION STRATIGRAPHY

SHEET IDENTIFICATION
BS213



Fargo-Moorhead Metro Feasibility Study

Phase 4 ND Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Nov-10

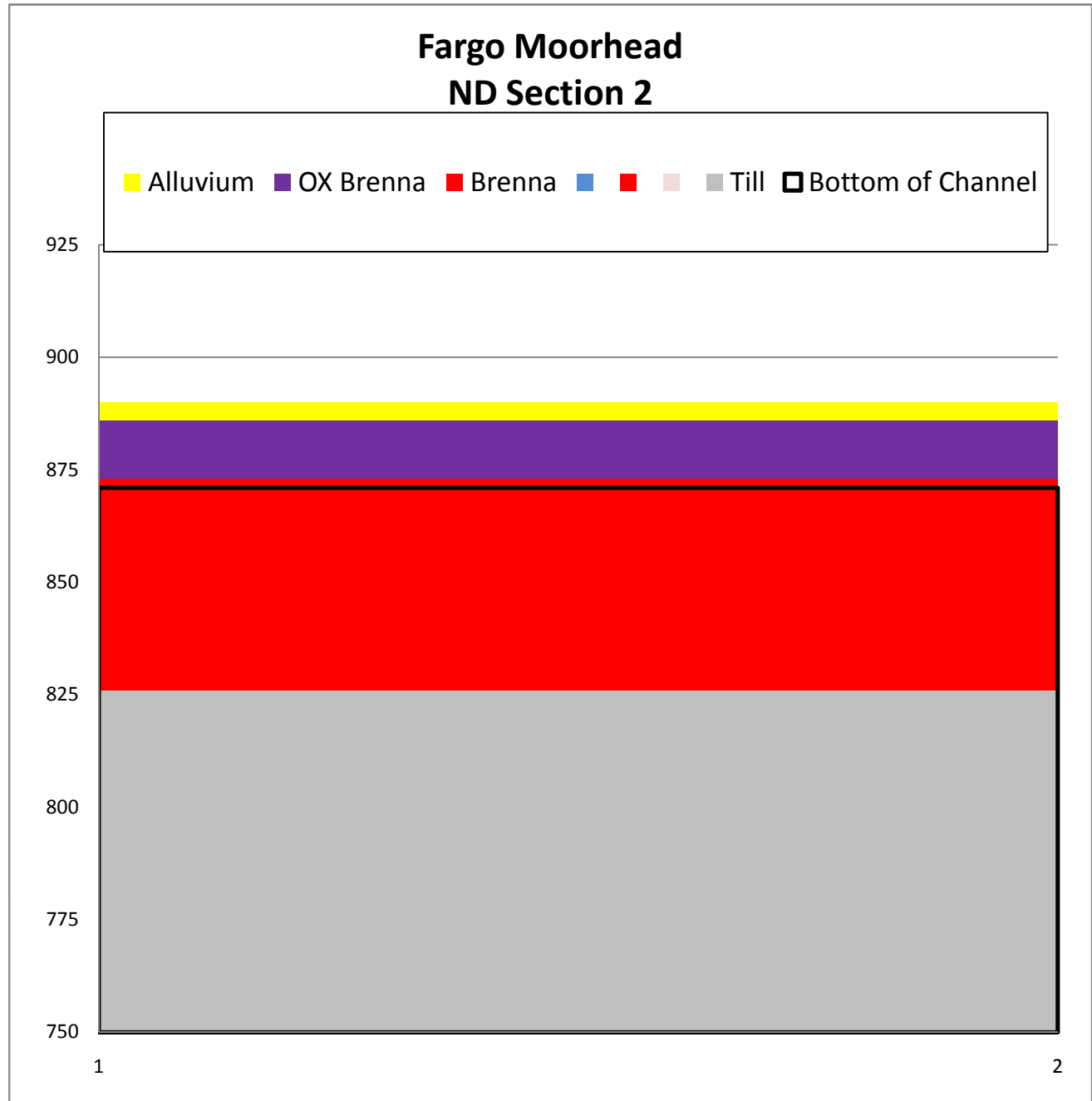
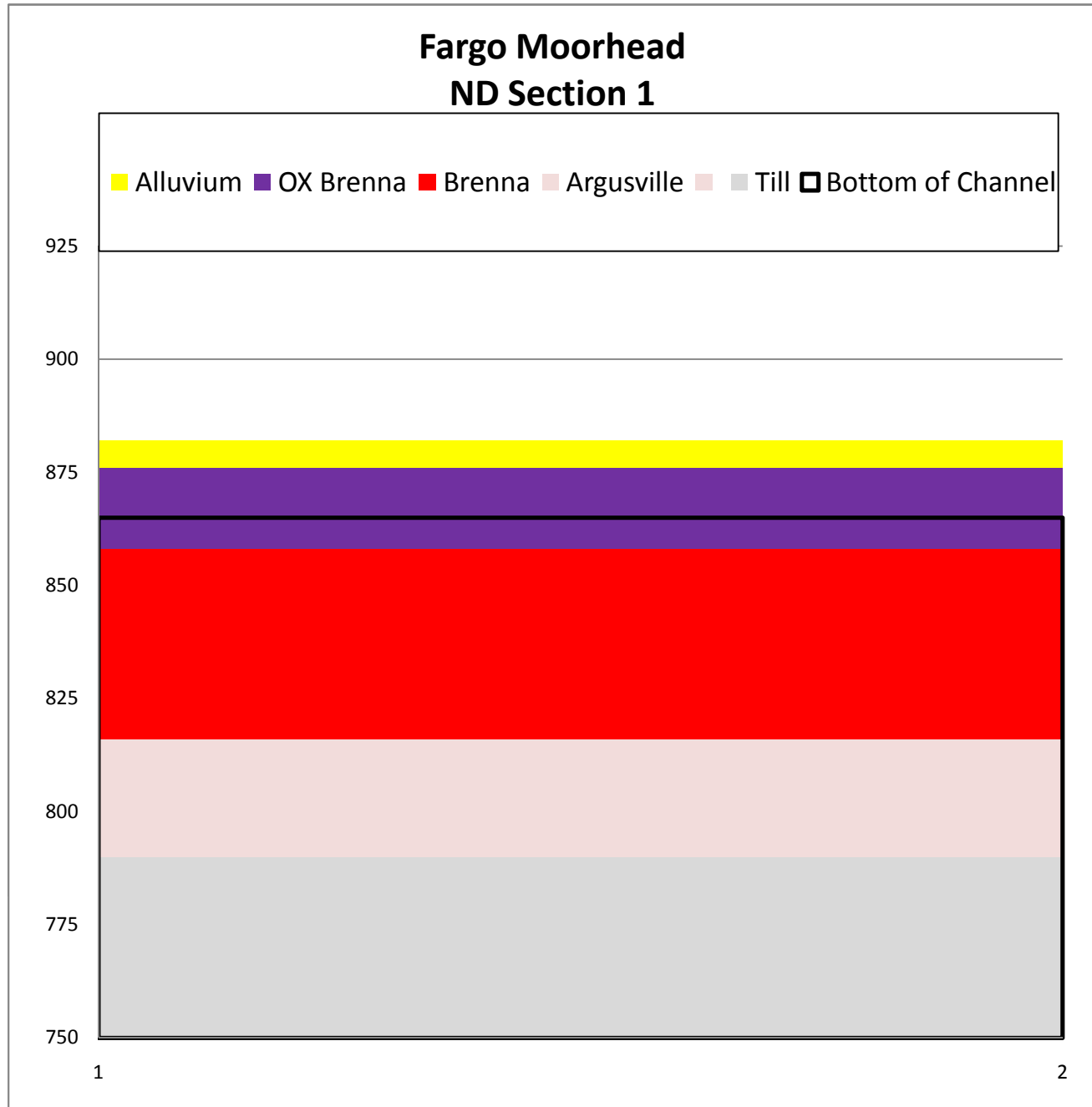
Date: 11-Feb-11

ND Section 1

Alluvium	OX Brenna	Brenna	Argusville			Till	Bottom of Channel
882	876	858	816			790	865
882	876	858	816			790	865

ND Section 2

Alluvium	OX Brenna	Brenna				Till	Bottom of Channel
890	886	873				826	871
890	886	873				826	871





Fargo-Moorhead Metro Feasibility Study

Phase 4 ND Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Nov-10

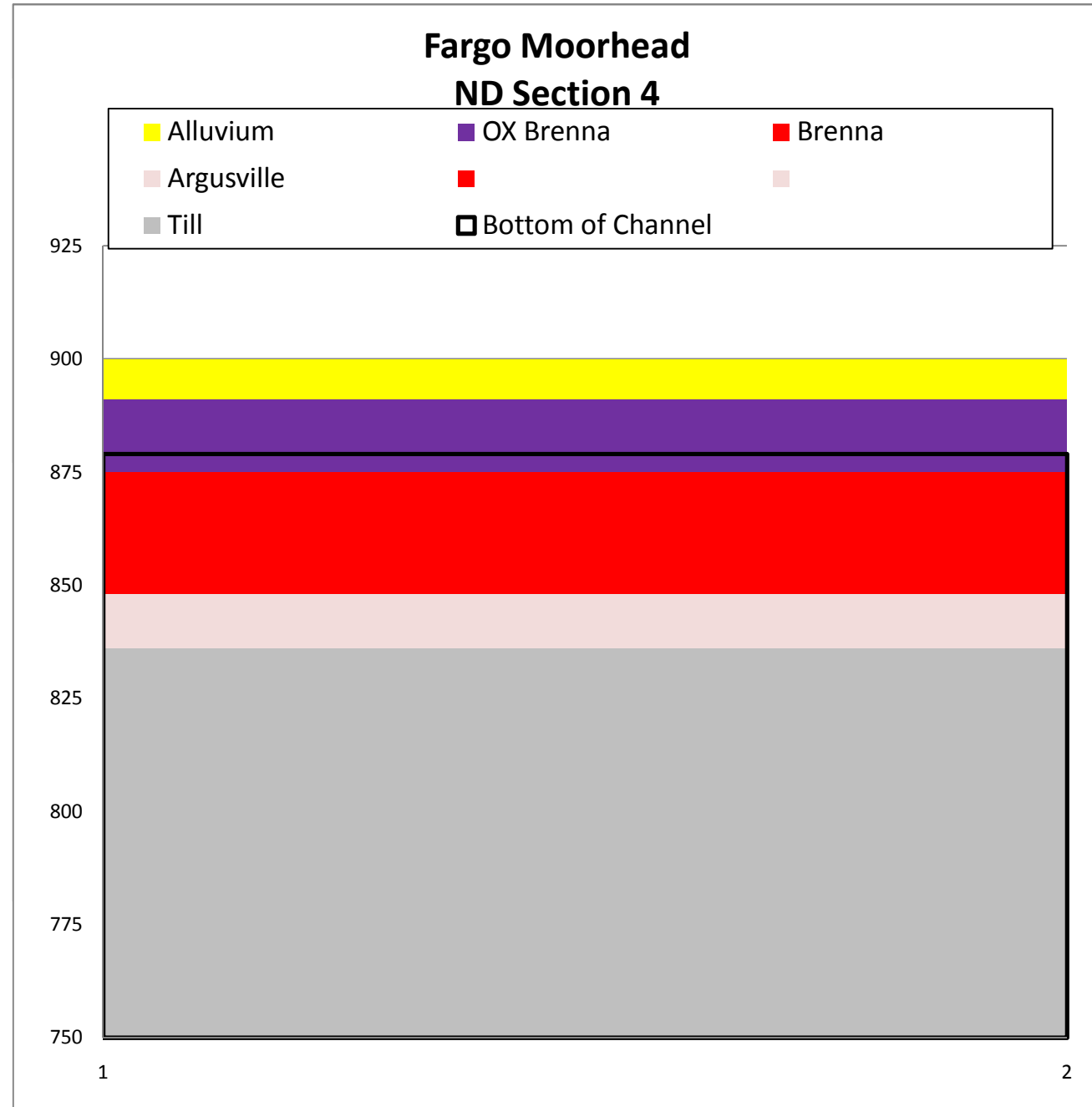
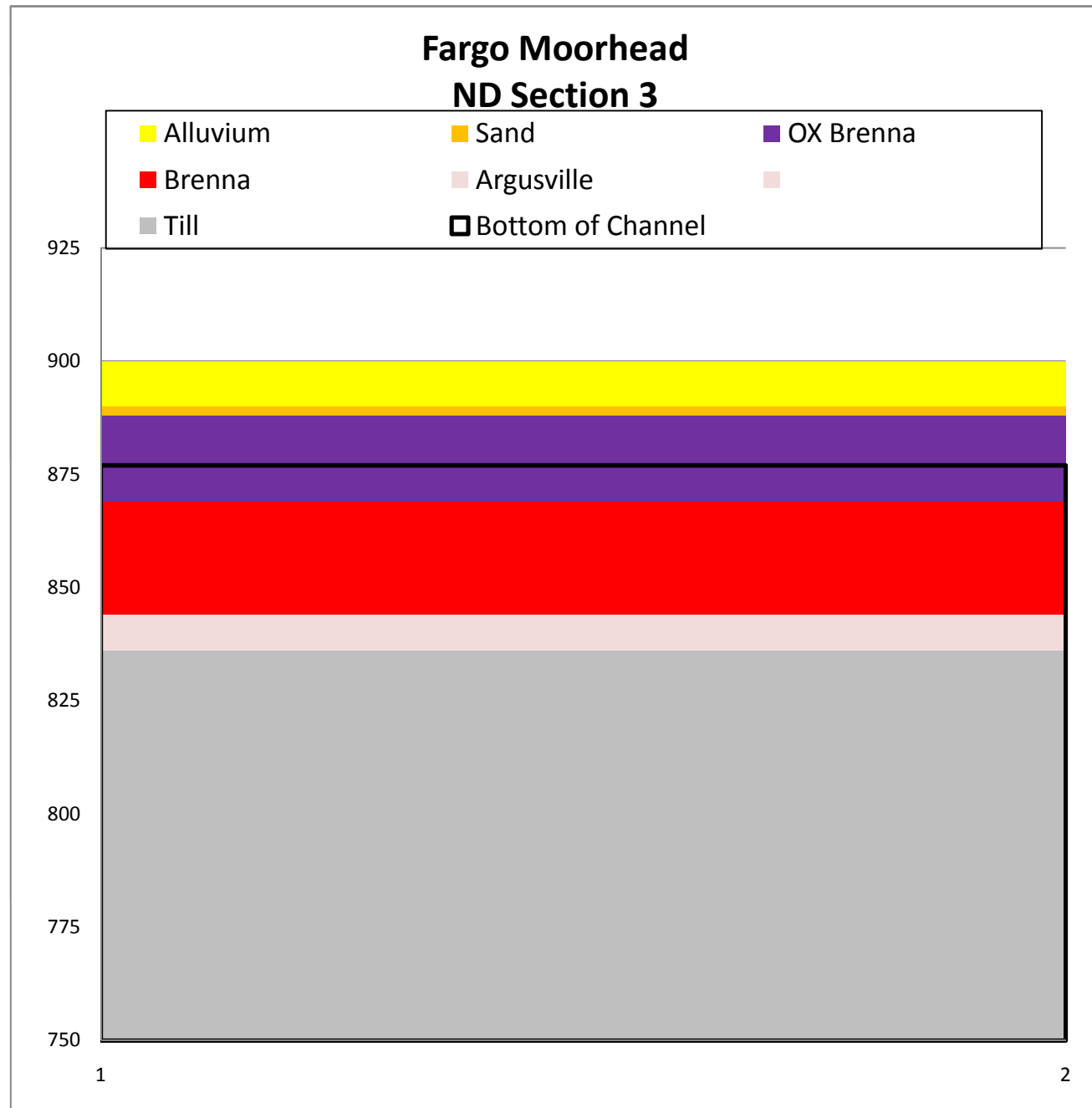
Date: 11-Feb-11

ND Section 3

Alluvium	Sand	OX Brenna	Brenna	Argusville		Till	Bottom of Channel
900	890	888	869	844		836	877
900	890	888	869	844		836	877

ND Section 4

Alluvium	OX Brenna	Brenna	Argusville			Till	Bottom of Channel
900	891	875	848			836	879
900	891	875	848			836	879





Fargo-Moorhead Metro Feasibility Study

Phase 4 ND Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Nov-10

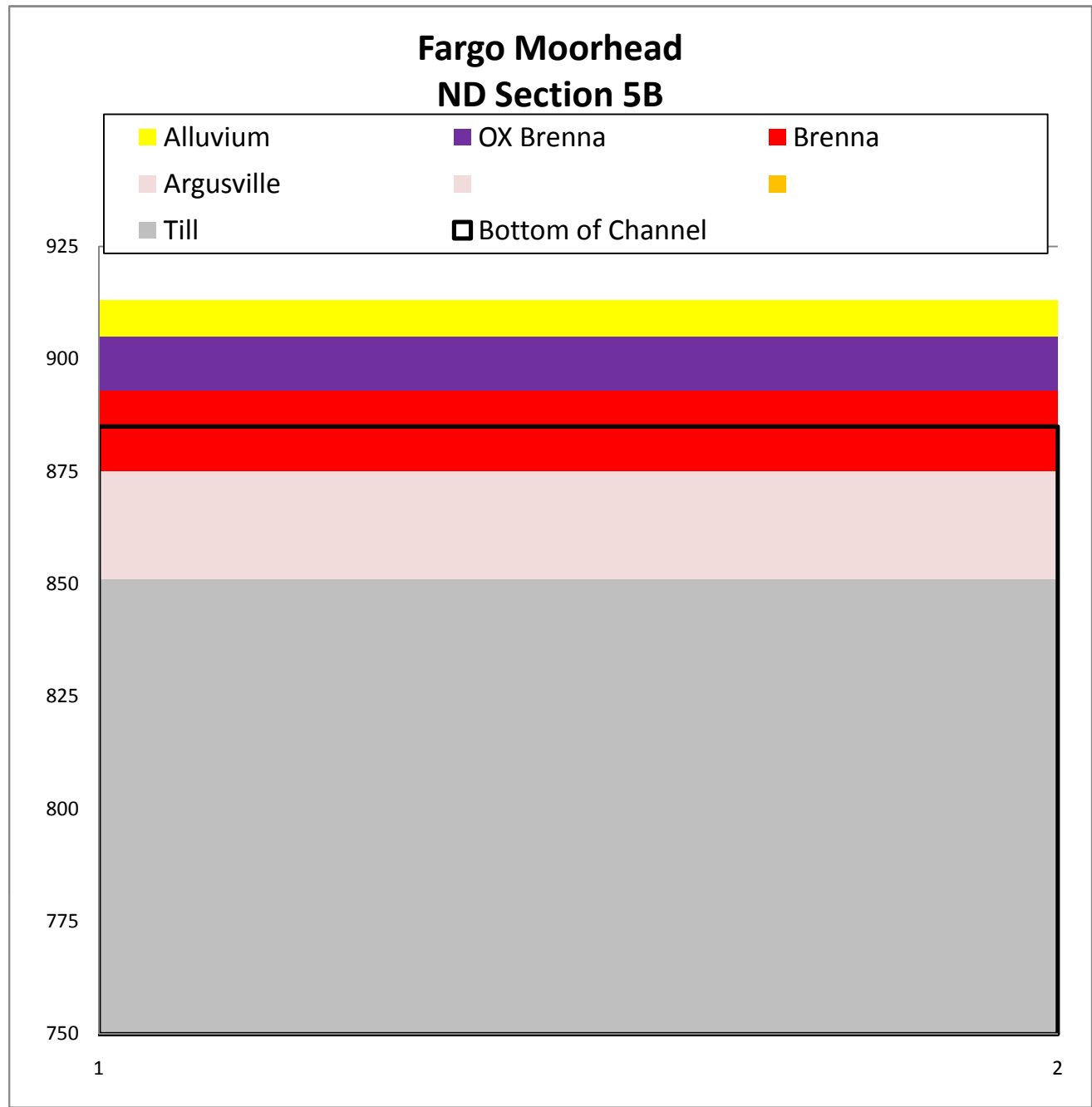
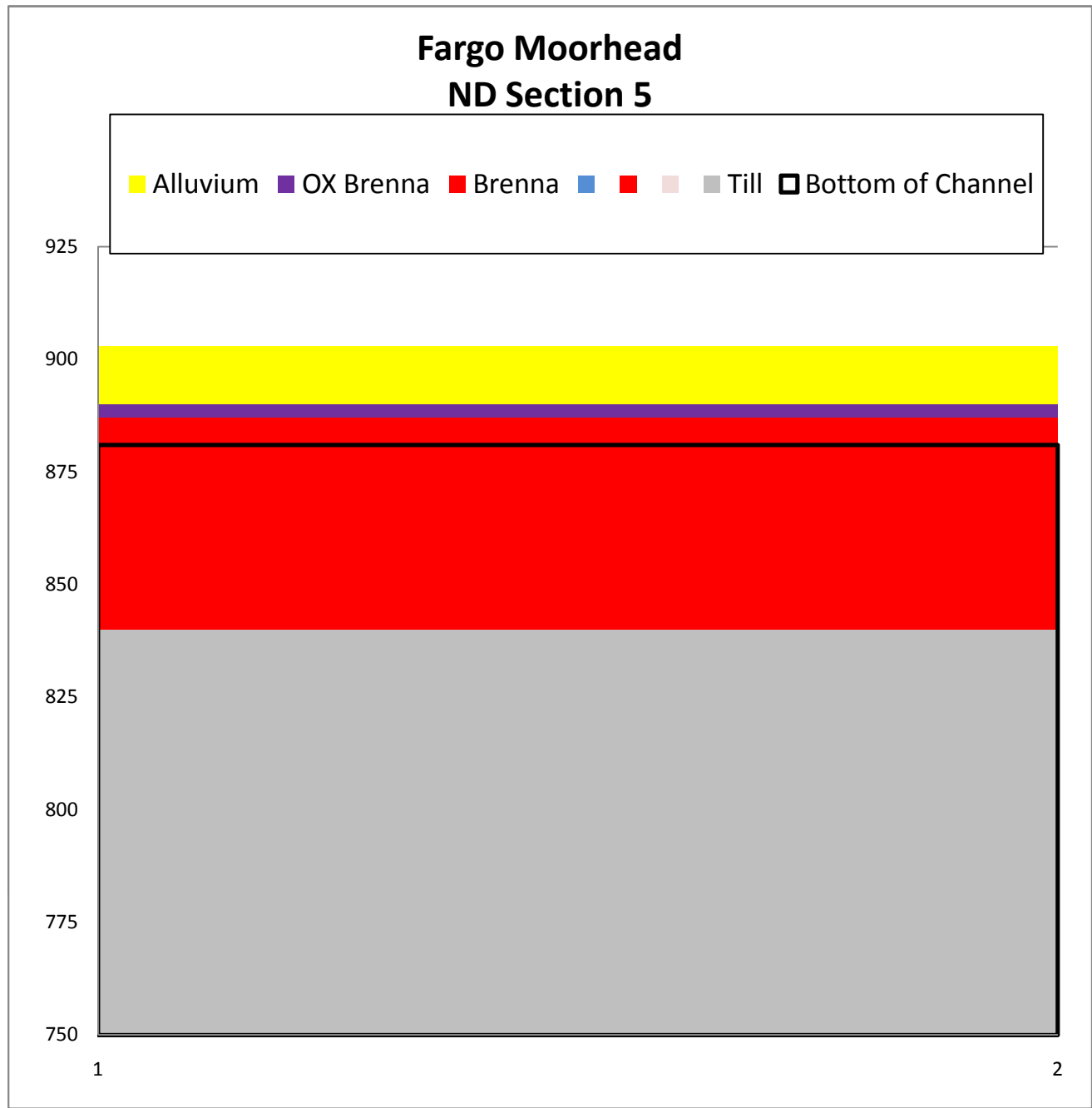
Date: 11-Feb-11

ND Section 5

Alluvium	OX Brenna	Brenna				Till	Bottom of Channel
903	890	887				840	881
903	890	887				840	881

ND Section 5B

Alluvium	OX Brenna	Brenna	Argusville			Till	Bottom of Channel
913	905	893	875			851	885
913	905	893	875			851	885





Fargo-Moorhead Metro Feasibility Study

Phase 4 ND Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Nov-10

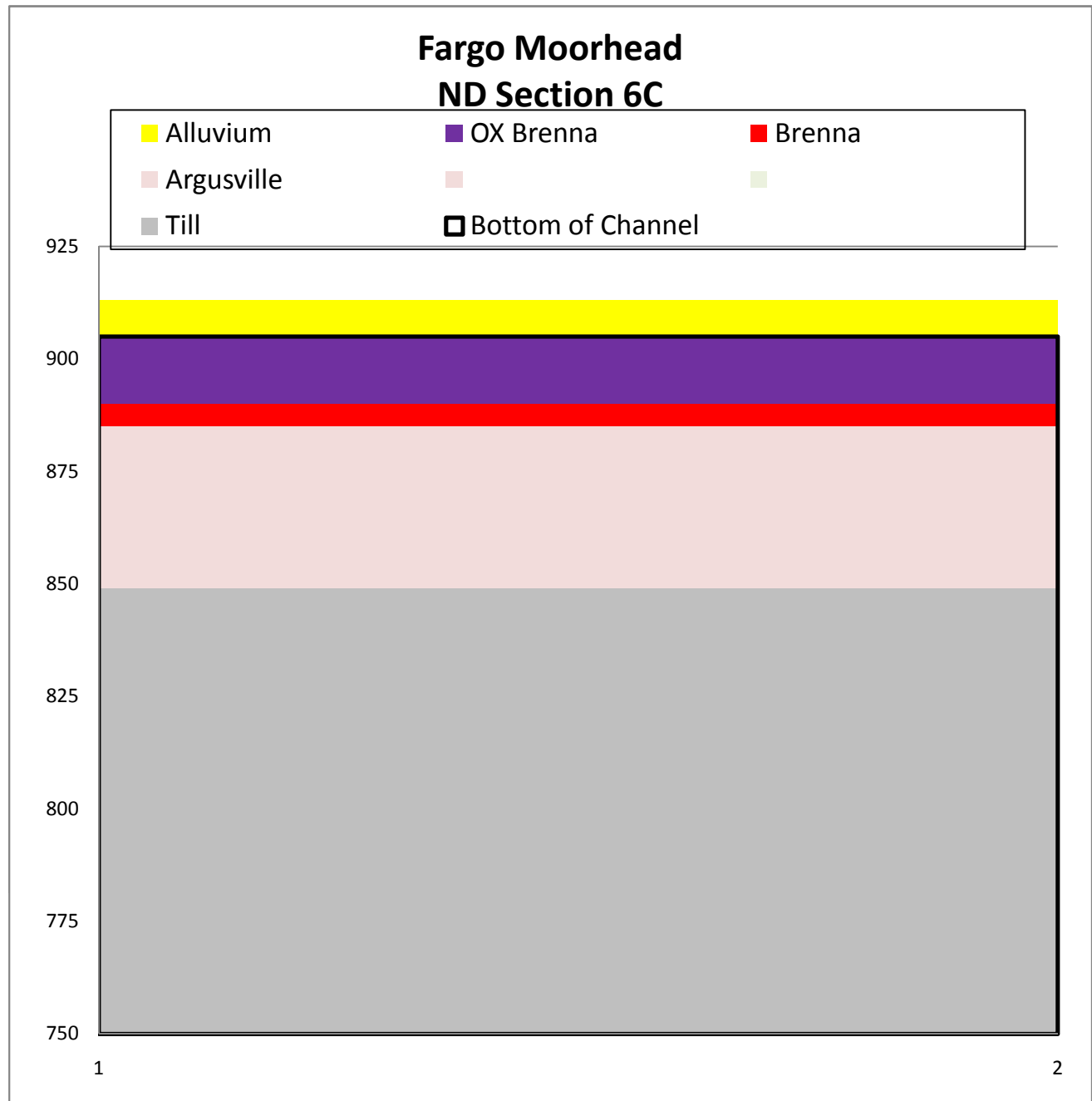
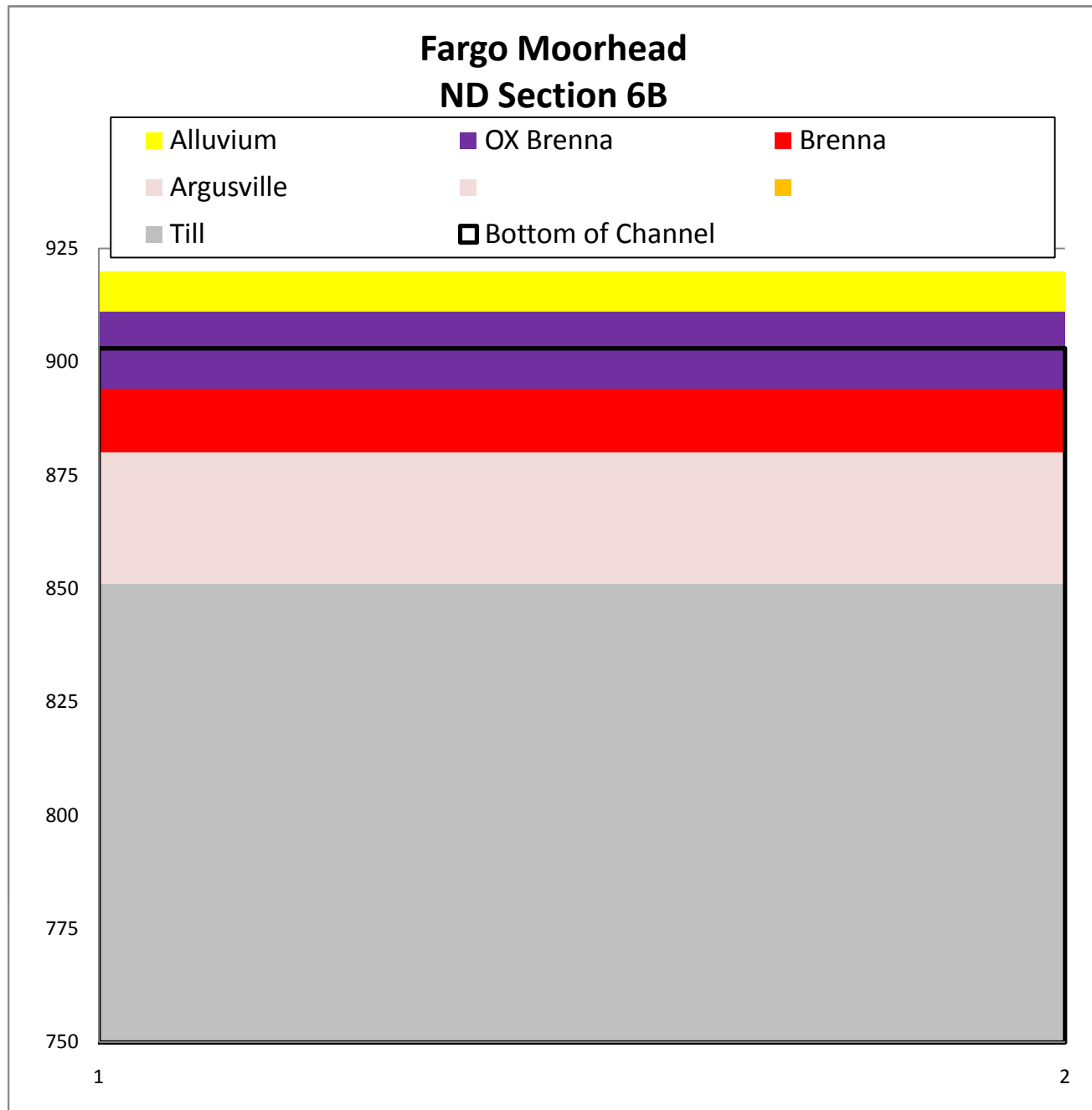
Date: 11-Feb-11

ND Section 6B

Alluvium	OX Brenna	Brenna	Argusville			Till	Bottom of Channel
920	911	894	880			851	903
920	911	894	880		0	851	903

ND Section 6C

Alluvium	OX Brenna	Brenna	Argusville			Till	Bottom of Channel
913	905	890	885			849	905
913	905	890	885			849	905





Fargo-Moorhead Metro Feasibility Study

Phase 4 ND Diversion Modeling Configuration

Compiled By: KAH

Revised By: KAH

Date: 30-Nov-10

Date: 11-Feb-11

ND Section 7

Alluvium	OX Brenna	Argusville				Till	Bottom of Channel
912	904	886				845	901
912	904	886				845	901

