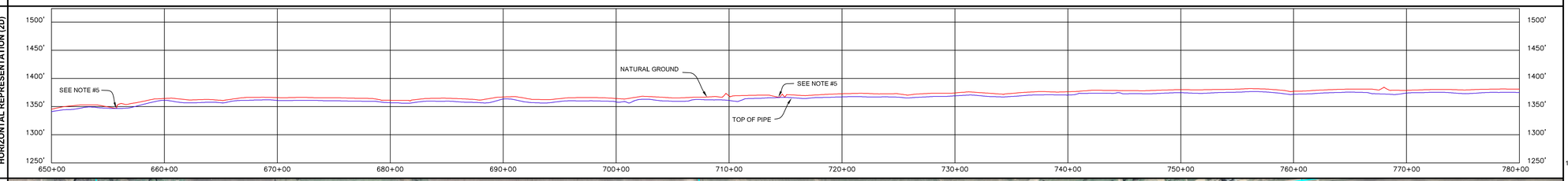
RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

650+00	ML-ND-WL-0122.0000	RD-ND-WL-0122.0000 64TH STREET NE	ML-ND-WL-0123.0000	687+40	ML-ND-WL-0125.0000	700+47	ML-ND-WL-0126.0000	RR-ND-WL-0126.0000 BURLINGTON NORTHERN RAILWAY	ML-ND-WL-0126.9000	RD-ND-WL-0126.0000 63RD STREET NE	ML-ND-WL-0127.0000	740+14	ML-ND-WL-0127.1000	741+52	ML-ND-WL-0127.1100	767+16	RD-ND-WL-0127.1100 COUNTY ROAD 15 (63RD STREET NE)	768+46	ML-ND-WL-0127.1200	780+00
		656+14								714+63										

LAND USE

PIPELINE PROFILE

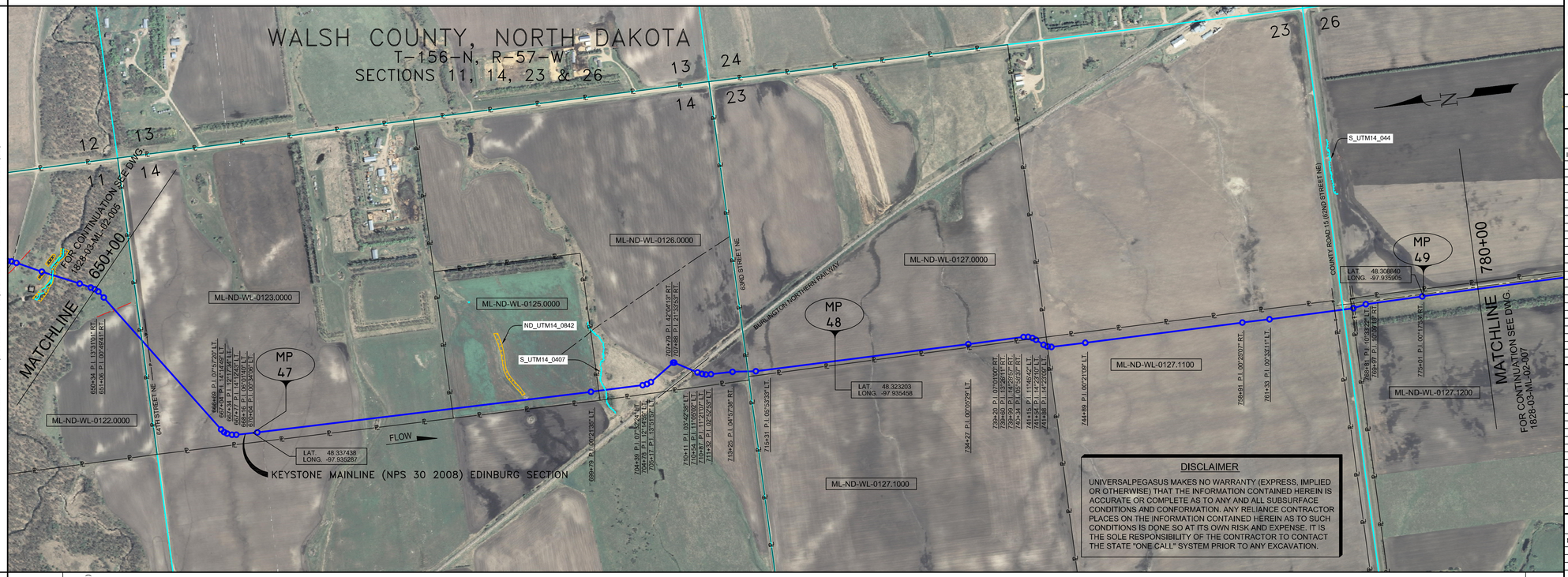
HORIZ. 1"=500' VER. 1"=100'
HORIZONTAL REPRESENTATION (2D)



LEGEND

- KEYSTONE PIPELINE
- STATE BOUNDARY
- COUNTY/TOWNSHIP
- SECTIONS
- NATIONAL OR STATE RESERVATION BOUNDARY
- PROPERTY LINE
- FENCE
- EXCLUSIONARY FENCE
- POWER LINE
- TELEPHONE LINE
- BURIED CABLE
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER / DRAIN
- FOREIGN PIPELINE
- RAILROAD
- HIGHWAY / ROAD
- STREAM / DITCH
- WETLAND
- INTERSTATE ROUTE
- U.S. ROUTE
- STATE ROUTE
- POINT OF INTERSECTION (PI)
- PIPELINE MILEPOST
- DIRECTION OF FLOW
- HOUSE
- BUILDING
- WATER WELL
- MAINLINE VALVE
- ML-XX-XX-0000.0000 TRACT NUMBER

PIPELINE PLAN (SCALE 1" = 500')HORIZONTAL REPRESENTATION (2D)



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PIPELINE SCHEMATIC

- HEAVYWALL PIPE
- WELD FITTING
- TRANSITION PIECE
- CASING PIPE
- CONCRETE COATING
- SET-ON WEIGHTS
- PIPELINE WARNING SIGN
- PIPELINE MARKER
- MATERIAL ITEM
- GROUNDING MAT
- ZINC RIBBON
- AERIAL MARKER
- CATHODIC TEST STATION
- MAINLINE VALVE
- CHECK VALVE
- O.C. OPEN CUT
- BR. BORE
- D DRINKING WATER USA
- E ECOLOGICAL USA
- H HIGHLY POPULATED AREA
- K OPERATOR (KEYSTONE) DEFINED
- O OTHER POPULATED AREA
- S SOURCE WATER PROTECTION AREA
- W WELLHEAD PROTECTION AREA

STATION/DESCRIPTION — PIPELINE DATA

HORIZONTAL STATIONS (2D)

MATCHLINE 650+00 | 650+34 P.I. 13°31'01" RT. | 651+06 P.I. 00°49'41" RT. | 652+47 FENCE (BARBED WIRE) | 656+02 EDGE OF ROAD | 656+14 CL 64TH STREET NE | 656+25 EDGE OF ROAD | 657+03 OVERHEAD POWERLINE | 664+95 WATER EDGE | 665+12 CL CREEK | 665+34 WATER EDGE | 667+54 P.I. 12°17'54" LT. | 667+77 P.I. 14°12'43" LT. | 668+16 P.I. 06°01'49" LT. | 670+04 P.I. 00°34'06" LT. | 679+01 WATER EDGE | 679+19 CL CREEK | 679+34 WATER EDGE | 681+58 WATER EDGE | 681+82 CL CREEK | 682+82 WATER EDGE | 689+78 P.I. 00°21'35" LT. | 700+87 BEGIN SLOUGH | 701+10 CL SLOUGH | 701+33 END SLOUGH | 704+39 P.I. 07°37'23" LT. | 704+78 P.I. 12°44'49" LT. | 705+17 P.I. 13°31'57" LT. | 706+08 WATER EDGE | 706+31 CL TRIBUTARY OF FOREST RIVER | 706+42 WATER EDGE | 707+88 P.I. 21°35'33" RT. | 709+03 TOP OF RAIL | 709+06 CL BURLINGTON NORTHERN RAILWAY | 709+09 TOP OF RAIL | 710+11 P.I. 03°42'38" LT. | 710+54 P.I. 11°00'02" LT. | 711+32 P.I. 02°52'53" LT. | 713+25 P.I. 04°57'38" RT. | 714+58 EDGE OF ROAD | 714+86 CL 63RD STREET NE | 715+14 EDGE OF ROAD | 715+31 P.I. 05°53'33" LT. | 725+62 TOP BANK | 725+77 TOP BANK | 734+11 TOP BANK | 734+22 P.I. 00°03'29" LT. | 734+32 TOP BANK | 738+20 P.I. 07°01'05" RT. | 738+53 P.I. 13°26'11" RT. | 739+59 P.I. 14°28'57" RT. | 740+34 P.I. 05°58'37" RT. | 741+15 P.I. 11°45'42" LT. | 741+54 P.I. 14°23'05" LT. | 741+86 P.I. 14°23'05" LT. | 744+89 P.I. 00°21'09" LT. | 758+27 P.I. 00°25'07" RT. | 760+83 WATER EDGE | 761+03 CL CREEK | 761+24 WATER EDGE | 762+69 P.I. 00°33'11" LT. | 767+15 TELEPHONE LINE | 767+45 ROAD BAR DITCH | 767+76 EDGE OF ROAD | 768+13 CL 62ND STREET NE | 768+31 ROAD BAR DITCH | 768+75 TELEPHONE LINE | 768+81 P.I. 10°33'22" LT. | 768+93 TELEPHONE LINE | 769+97 P.I. 10°09'16" RT. | 775+01 P.I. 00°17'53" RT. | MATCHLINE 780+00

SLOPE STATIONS (3D)

MATCHLINE 651+25 | 651+59 P.I. 13°31'01" RT. | 652+31 P.I. 00°49'41" RT. | 653+72 FENCE (BARBED WIRE) | 655+31 4.8' CVR. | 657+15 7.7' CVR. | 657+39 CL 64TH STREET NE | 657+50 EDGE OF ROAD | 688+29 OVERHEAD POWERLINE, HT. = 25' | 664+21 WATER EDGE | 666+36 CL CREEK | 666+51 WATER EDGE | 667+95 P.I. 12°17'54" LT. | 668+41 P.I. 12°17'54" LT. | 669+04 P.I. 14°12'43" LT. | 669+43 P.I. 06°01'49" LT. | 671+31 P.I. 00°34'06" LT. | 686+57 6.0' CVR. | 701+07 P.I. 00°21'35" LT. | 701+94 4.8' CVR. | 702+10 CL SLOUGH | 702+28 END SLOUGH | 705+14 6.4' CVR. | 706+08 P.I. 12°44'49" LT. | 706+47 P.I. 13°31'57" LT. | 706+61 WATER EDGE | 707+73 CL TRIBUTARY OF FOREST RIVER | 708+09 P.I. 42°04'13" RT. | 709+19 P.I. 21°35'33" RT. | 680+28 WATER EDGE | 680+46 CL CREEK | 680+62 WATER EDGE | 682+86 WATER EDGE | 683+10 WATER EDGE | 723+71 M.P. 48 | 729+95 TOP BANK | 730+11 TOP BANK | 735+44 TOP BANK | 735+60 P.I. 00°03'29" LT. | 735+76 TOP BANK | 738+62 6.2' CVR. | 740+53 P.I. 07°01'05" RT. | 741+15 P.I. 14°28'57" RT. | 741+53 P.I. 14°28'57" RT. | 741+68 P.I. 05°58'37" RT. | 742+46 P.I. 11°45'42" LT. | 743+23 P.I. 14°23'05" LT. | 744+98 5.1' CVR. | 746+25 P.I. 00°21'09" LT. | 760+27 P.I. 00°25'07" RT. | 760+83 WATER EDGE | 761+03 CL CREEK | 761+24 WATER EDGE | 762+69 P.I. 00°33'11" LT. | 768+23 8.2' CVR. | 768+31 ROAD BAR DITCH | 768+38 8.0' CVR. | 768+82 EDGE OF ROAD | 768+13 EDGE OF ROAD (ABOVE) | 768+31 ROAD BAR DITCH (ABOVE) | 768+40 CL 62ND STREET NE (COUNTY ROAD 15 (62ND STREET NE)) | 768+47 ROAD BAR DITCH (ABOVE) | 768+75 TELEPHONE LINE | 768+81 P.I. 10°33'22" LT. | 768+93 TELEPHONE LINE | 769+98 4.5' CVR. (ABOVE) | 770+12 TELEPHONE LINE (ABOVE) | 770+30 P.I. 10°33'22" LT. (ABOVE) | 770+42 TELEPHONE LINE (ABOVE) | 771+34 P.I. 10°09'16" RT. | 771+54 4.6' CVR. | 776+38 P.I. 00°17'53" RT. | 776+51 M.P. 49 | 777+98 6.1' CVR. | MATCHLINE 781+37

PIPE SLOPE REPRESENTATION (3D)

651+25	① 550' FBE	653+78	656+75	③ 121' FBE & ARO BR.	657+96	688+29	① 5,165' FBE	701+62	702+58	707+26	707+73	707+09	709+19	709+61	③ 80' FBE & ARO	710+41	④ 118' FBE & ARO BR.	711+59	③ 79' FBE & ARO TYPE	712+38	715+55	① 317' FBE	③ 80' FBE & ARO BR.	716+35	① 2,478' FBE	741+13	② 2,725' FBE	768+38	③ 160' FBE & ARO BR.	769+98	② 1,139' FBE	781+37

CPS (3D)

TEST SECTIONS (3D): TEST SECTION 1A-3 ILTO-019-2010

ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)

- TOPSOIL SALVAGE METHOD
- STREAMS
- WETLANDS
- TIMING CONSTRAINTS
- **STATIONS**
- MONITORING
- RECLAMATION
- SPECIAL CONSIDERATIONS

GENERAL NOTES

1) ALL CHAINAGES ARE IN FEET UNLESS OTHERWISE SPECIFIED.

2) DATUM ELEVATION AND PROJECTION ARE BASED ON MEAN SEA LEVEL AND NAD 83.

3) FIELD PIPE LOCATING REQUIRED TO DETERMINE PLACEMENT OF PIPELINE WITHIN PERMANENT EASEMENT.

4) UNLESS OTHERWISE NOTED, 48 INCHES MINIMUM COVER EXCEPT 36 INCHES IN AREAS OF CONSOLIDATED ROCK.

5) NO ACTUAL AS-BUILT GROUND SHOTS WERE TAKEN AT THIS LOCATION. THE PROFILE REPRESENTS A PROJECTION FROM SHOTS TAKEN AT 150' TO 250' INTERVALS.

6) THE TYPE OF COATING APPLIED TO THE FIELD WELDS DURING THE ORIGINAL CONSTRUCTION WAS TWO COMPONENT LIQUID EPOXY. THE COATING PRODUCTS USED WERE DENSO 7200 OR SPC SP-2888.

7) THE SUBSTANTIAL CONSTRUCTION COMPLETION DATE, BASED ON CALIPER PIG RUN, WAS AUGUST 12, 2009 FOR M.P. 31.03 TO M.P. 66.93 AND AUGUST 16, 2009 FOR M.P. 66.90 TO M.P. 88.54.

8) ORIGINAL IN-SERVICE DATE OF THE KEYSTONE PIPELINE (PHASE 1): JUNE 30, 2010.

9) CPS CALCULATION DATE: MAY 2010.

10) ORION STATION SERIES NUMBER: 1182700.

11) TO DETERMINE THE MILE POST AT A GIVEN LOCATION, ADD THE 3D STATION NUMBER FROM THIS SEGMENT TO STATION NUMBER 1810+69 AND DIVIDE BY 5280.

OPERATING AND TEST PRESSURE

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 1901 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
1	30" O.D. X 0.438" W.T., API -5LX-70 W/FBE COATING	8,510'
2	30" O.D. X 0.386" W.T., API -5LX-70 W/FBE COATING	3,864'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	520'
4	30" O.D. X 0.622" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	118'
101B	30" 45° 3 DIA RAD WELD FITTING 0.429" W.T., Y-70	1 EA
101C	30" 20° 3 DIA RAD WELD FITTING 0.429" W.T., Y-70	1 EA
	PIPELINE MARKERS	3 EA
	PIPELINE WARNING SIGNS	10 EA
	CATHODIC TEST STATION	3 EA
	AERIAL MARKER	0 EA

REFERENCE DRAWINGS

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE

REVISIONS

NO.	DATE	REV. BY	CHK'D BY	APPR'D BY	ENV. APPR'D	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	8/27/08	UEI	GTC	LAG	SEC	ADDED CROSSING DETAILS
3	10/11/22	UEI				ISSUED FOR AS-BUILT
						1828-03-ML-02-006
						REPLACES COVERAGE OF IFC DRAWINGS
						1828-03-ML-02-009,
						1828-03-ML-02-010

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/01/04	ENV. APPRD.		
CHECKED BY			APPRD. BY		
			COMPANY APPROVED		

PROFESSIONAL ENGINEER

NAME	STATE	LIC#	REV#	DATE
LOYS A. GRAY, III	ND	PE5714		

SCALE: 0 125 250 500 Feet

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UNIVERSAL PEGASUS INTERNATIONAL

KEYSTONE MAINLINE (NPS 30 2008) EDINBURG SECTION

F/A#	SPREAD	DISCIPLINE
1828	1A	03

AS-BUILT ALIGNMENT

M.P. 46.63 TO M.P. 49.09

SHEET 6 OF 18 SHEETS

STA. 651+25 TO STA. 781+37 (3D)

DRAWING NO. 1828-03-ML-02-006 REV: 3

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