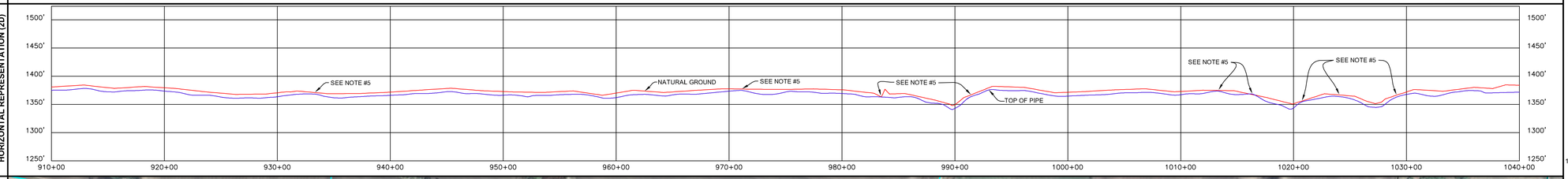
RIGHT-OF-WAY
HORIZONTAL REPRESENTATION (2D)
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

910+00	ML-ND-WL-0127.1600 ML-ND-WL-0134.0000	RD-ND-WL-0134.0000 59TH STREET NE	930+86	ML-ND-WL-0135.0000	957+35	ML-ND-WL-0136.0000	RD-ND-WL-0136.0000 COUNTRY ROAD 19	983+71	ML-ND-WL-0137.0000	1010+70	ML-ND-WL-0138.0000	RD-ND-WL-0138.0000 COUNTRY ROAD 14	1038+73	ML-ND-WL-0139.0000	RD-ND-WL-0139.0000 57TH STREET NE	1039+21	ML-ND-WL-0139.0001	1040+00

LAND USE

PIPELINE PROFILE

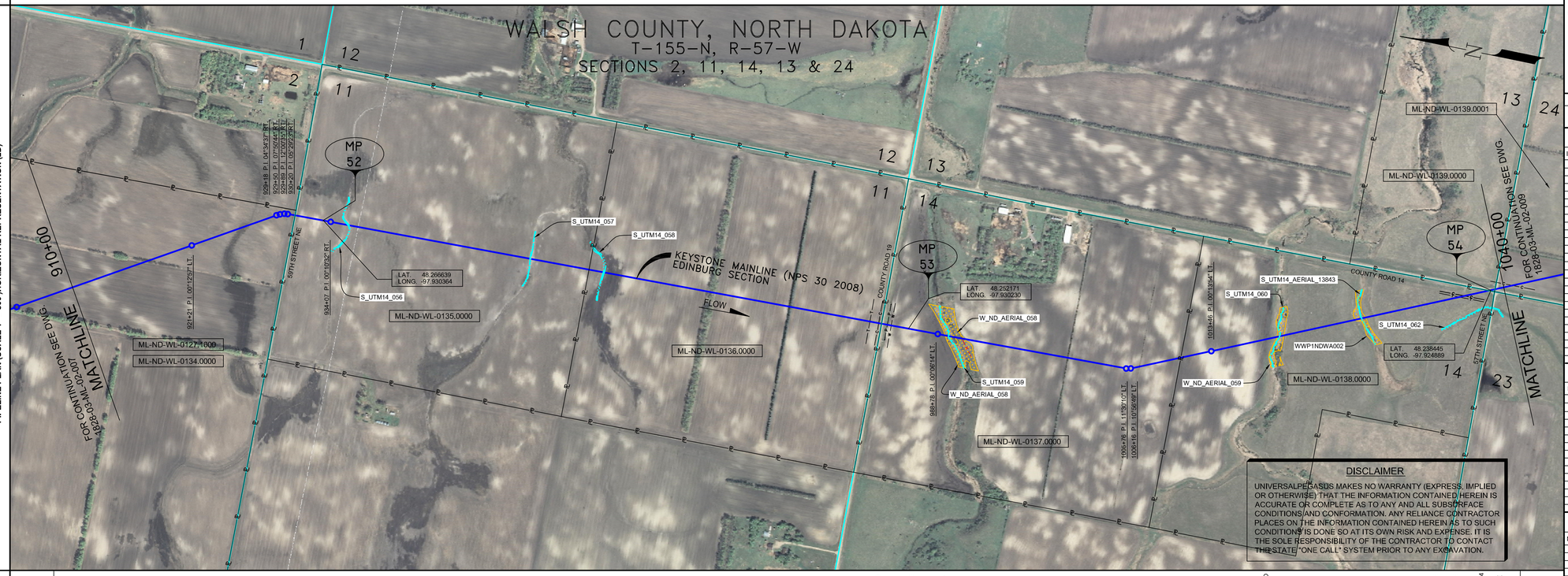
HORIZ. 1"=500' VER. 1"=100'
HORIZONTAL REPRESENTATION (2D)



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 (MP 52)
- DIRECTION OF FLOW
- HOUSE
- BUILDING
- WATER WELL
- MAINLINE VALVE
- ML-XX-XX-0000.0000 TRACT NUMBER

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



DISCLAIMER

UNIVERSALPEGASUS MAKES NO WARRANTY (EXPRESS, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

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

PIPELINE DATA — STATION/DESCRIPTION

- 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

HORIZONTAL STATIONS (2D)

MATCHLINE 910+00 | 921+21 P.I. 00°12'57" LT. | 929+18 P.I. 04°34'37" RT. | 929+50 P.I. 07°50'44" RT. | 930+45 P.I. 12°00'35" RT. | 930+20 P.I. 05°29'23" RT. | 930+81 EDGE OF ROAD 930+82 CL 59TH STREET NE 930+82 EDGE OF ROAD | 934+07 P.I. 00°10'32" RT. | 982+67 TELEPHONE LINE | 983+45 FIBER OPTIC CABLE | 983+18 EDGE OF ROAD 983+37 CL COUNTRY ROAD 19 983+57 EDGE OF ROAD | 984+23 DITCH | 984+59 POWERLINE 984+59 WATER SUPPLY LINE | 988+78 P.I. 00°06'14" LT. | 989+26 EDGE OF SHIELD | 989+46 WATER EDGE | 989+73 CL CREEK 990+43 WATER EDGE 990+43 WATER SHIELD | 1003+45 P.I. 00°13'54" LT. | 1006+26 P.I. 11°35'10" LT. 1006+16 P.I. 10°36'49" LT. | 1013+46 P.I. 00°13'54" LT. | 1018+62 BEGIN ROCK SHIELD 1018+62 WATER EDGE 1019+77 CL CREEK 1020+52 END ROCK SHIELD | 1026+32 TOP BANK 1027+12 CL DITCH 1027+66 TOP BANK | 1035+96 TELEPHONE LINE | 1036+41 FIBER OPTIC CABLE | 1036+44 FIBER OPTIC CABLE | 1038+35 EDGE OF ROAD 1038+73 CL COUNTY ROAD 14 1038+73 EDGE OF ROAD 1039+11 EDGE OF ROAD 1039+21 CL 57TH STREET NE 1039+42 EDGE OF ROAD | MATCHLINE 1040+00

SLOPE STATIONS (3D)

MATCHLINE 911+50 | 911+54 5.6' CVR. | 922+72 P.I. 00°12'57" LT. | 930+45 6.5' CVR. 930+69 P.I. 04°34'37" RT. | 931+01 P.I. 07°50'44" RT. 931+45 P.I. 12°00'35" RT. 931+72 P.I. 05°29'23" RT. | 932+32 EDGE OF ROAD 932+43 CL 59TH STREET NE 932+43 EDGE OF ROAD | 934+91 M.P. 52 934+98 P.I. 00°10'32" RT. | 941+32 5.6' CVR. | 946+78 6.1' CVR. | 970+96 5.4' CVR. | 981+64 6.7' CVR. 984+22 TELEPHONE LINE, 2 CLR. (ABOVE) 984+22 FIBER OPTIC CABLE. 1 CLR. (ABOVE) 985+00 6.7' CVR. | 985+14 EDGE OF ROAD 985+37 CL COUNTRY ROAD 19 985+57 EDGE OF ROAD 985+78 6.2' CVR. | 986+19 POWERLINE, H.T. = 50' 986+19 6.0' CVR. | 987+71 M.P. 53 990+34 P.I. 00°06'14" LT. 990+50 BEGIN ROCK SHIELD 990+50 WATER EDGE 991+29 CL CREEK 991+61 WATER EDGE 991+61 WATER SHIELD 992+24 7.9' CVR. | 997+63 5.6' CVR. | 1007+32 P.I. 11°35'10" LT. 1008+77 CL DITCH 1009+77 P.I. 10°36'49" LT. | 1015+07 P.I. 00°13'54" LT. 1016+21 6.8' CVR. | 1020+27 BEGIN ROCK SHIELD 1021+30 WATER EDGE 1021+30 ULTERIEDGE 1022+16 END ROCK SHIELD | 1026+96 TOP BANK 1028+77 CL DITCH 1029+67 9.2' CVR. | 1037+63 5.6' CVR. 1037+63 TELEPHONE LINE, 1 CLR. (ABOVE) 1037+63 FIBER OPTIC CABLE. 1 CLR. (ABOVE) 1038+06 FIBER OPTIC CABLE. CLR. UNK. 1038+11 FIBER OPTIC CABLE. CLR. UNK. 1038+32 EDGE OF ROAD 1040+40 CL COUNTY ROAD 14 1040+51 EDGE OF ROAD 1040+58 CL 57TH STREET NE 1041+10 EDGE OF ROAD | MATCHLINE 1041+69

PIPE SLOPE REPRESENTATION (2D)

911+50 | ② 2,047' FBE | 918+18 | 931+97 | ③ 77' FBE & ARO BR. | 932+74 | 937+09 | ② 5,195' FBE | 953+49 | 960+03 | 969+91 | 977+07 | 984+69 | ③ 119' FBE & ARO BR. | 985+88 | 990+96 | 991+77 | 1002+06 | 1008+32 | ② 5,244' FBE | 1020+55 | 1021+87 | 1038+32 | ③ 337' FBE & ARO BR. | 1041+69

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 1801 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T., API -5LX-70 W/FBE COATING	12,486'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	533'
	PIPELINE MARKERS	10 EA
	PIPELINE WARNING SIGNS	7 EA
	CATHODIC TEST STATION	2 EA
	AERIAL MARKER	0 EA

REFERENCE DRAWINGS

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

REVISIONS

NO.	DATE	REV. BY	CHCK BY	APPRD BY	ENV. APPRD	DESCRIPTION
1	8/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	10/11/22	UEI				ISSUED FOR AS-BUILT
						1828-03-ML-02-008
						REPLACES COVERAGE OF
						IFC DRAWINGS
						1828-03-ML-02-012,
						1828-03-ML-02-013

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

TransCanada — In business to deliver

KEYSTONE MAINLINE (NPS 30 2008) EDINBURG SECTION

F/A#	SPREAD	DISCIPLINE
1828	1A	03

AS-BUILT ALIGNMENT

M.P. 51.56 TO M.P. 54.02

SHEET 8 OF 18 SHEETS

STA. 911+50 TO STA. 1041+69 (3D)

DRAWING NO. 1828-03-ML-02-008 REV. 2

Z:\00_KEYSTONE_AS_BUILT\4-alignment sheets for North Dakota\ND1828_ASBUILTND1828-008.dwg, 3/9/2011 9:07:22 AM, pdfFactory.pc3