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

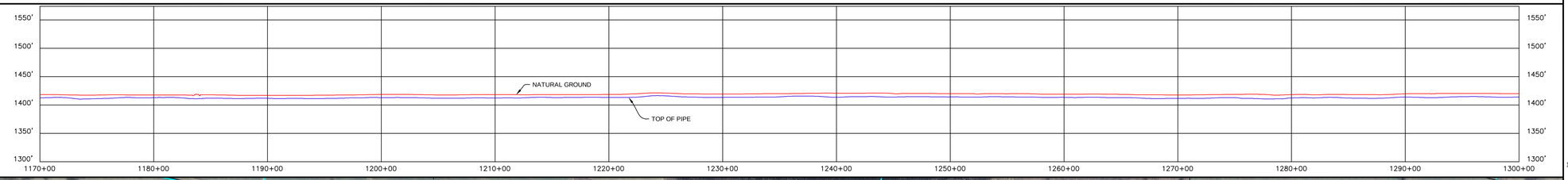
LAND USE

ML-SD-KB-0739.0000 | RD-SD-KB-0739.0000 212TH STREET | ML-SD-KB-0740.0000 | ML-SD-KB-0741.0000 | ML-SD-KB-0742.0000 | RD-SD-KB-0742.0000 420TH AVENUE | ML-SD-KB-0743.0000 | RD-SD-KB-0743.0000 234TH STREET | ML-SD-KB-0744.0000

1170+00 | 1183+76 | 1211+32 | 1238+79 | 1277+45 | 1292+39 | 1300+00

PIPELINE PROFILE

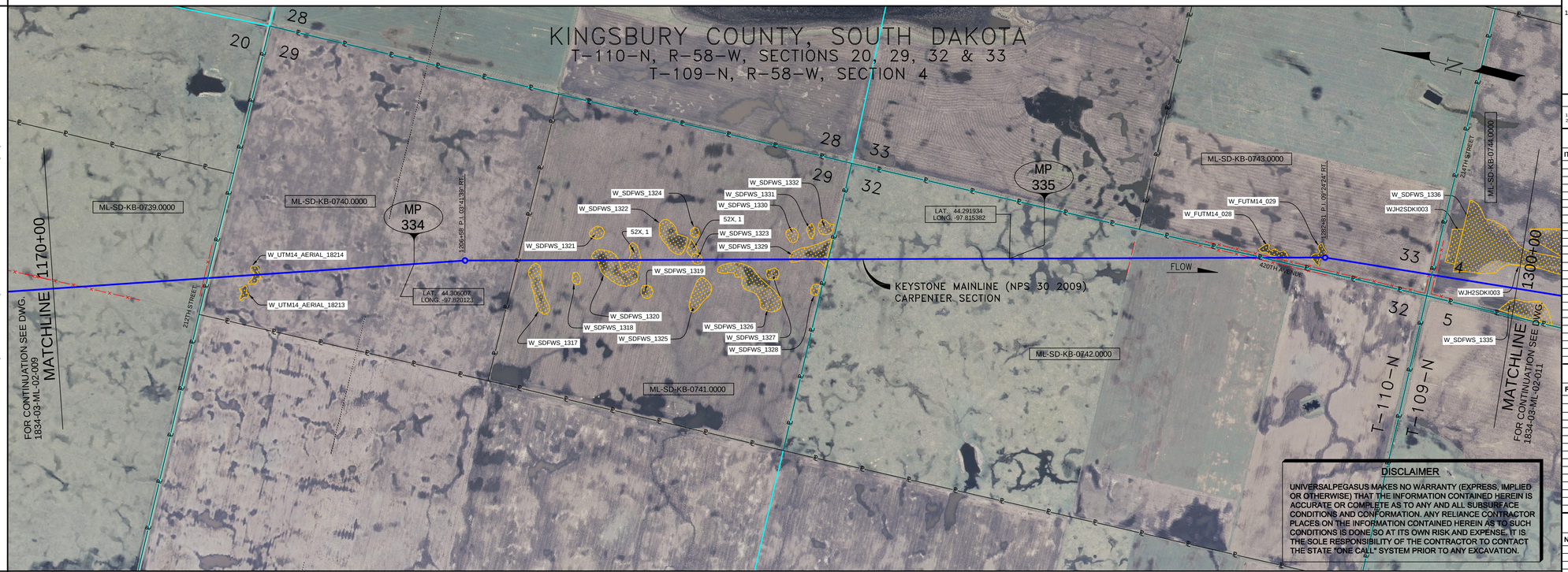
HORIZ: 1"=500' VER: 1"=100'
HORIZONTAL REPRESENTATION (2D)



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)



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
- 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

HORIZONTAL STATIONS (2D)

MATCHLINE 1170+00 | 1172+45 FENCE (BARBED WIRE) | 1183+40 FENCE (BARBED WIRE) 1183+63 EDGE OF ROAD 1183+74 212TH STREET 1183+85 EDGE OF ROAD | 1206+58 P.I. 03°41'39" RT. | 1211+29 FENCE (BARBED WIRE) | 1238+77 FENCE (BARBED WIRE) | 1265+58 FENCE (BARBED WIRE) | 1276+25 FENCE (BARBED WIRE) 1277+28 EDGE OF ROAD 1277+45 CL 420TH AVENUE 1278+42 EDGE OF ROAD 1278+42 FENCE (BARBED WIRE) | 1282+81 P.I. 09°24'24" RT. | 1292+15 FENCE (BARBED WIRE) 1292+31 EDGE OF ROAD 1292+47 234TH STREET 1292+70 EDGE OF ROAD 1292+70 FENCE (BARBED WIRE) | MATCHLINE 1300+00

SLOPE STATIONS (3D)

MATCHLINE 1170+74 | 1173+17 FENCE (BARBED WIRE) | 1184+12 FENCE (BARBED WIRE) 1184+36 EDGE OF ROAD 1184+47 212TH STREET 1184+57 EDGE OF ROAD 1184+80 6.5' CVR. | 1202+81 M.P. 334 | 1207+52 P.I. 03°41'39" RT. | 1211+53 5.6' CVR. 1212+03 FENCE (BARBED WIRE) 1227+65 5.6' CVR. | 1239+52 FENCE (BARBED WIRE) 1241+57 6.2' CVR. | 1255+61 M.P. 335 | 1255+72 4.9' CVR. | 1266+34 FENCE (BARBED WIRE) | 1271+59 5.8' CVR. | 1277+02 FENCE (BARBED WIRE) 1278+04 EDGE OF ROAD 1278+21 CL 420TH AVENUE 1278+38 EDGE OF ROAD 1279+18 FENCE (BARBED WIRE) | 1283+58 P.I. 09°24'24" RT. | 1287+16 6.5' CVR. | 1292+86 7.3' CVR. 1292+92 FENCE (BARBED WIRE) 1293+08 EDGE OF ROAD 1293+24 234TH STREET 1293+47 EDGE OF ROAD 1293+47 FENCE (BARBED WIRE) | 1295+79 5.6' CVR. | MATCHLINE 1300+77

PIPELINE DATA

PIPE SLOPE REPRESENTATION (2D)

1170+74 | ② 1,330' FBE | 1184+04 | ⑦ 80' FBE BR. | 1184+84 | 1239+06 | ⑦ 14' FBE | 1239+20 | 1239+51 | ③ 76' FBE & ARO | 1239+96 | ② 5,422' FBE | 1212+03 | ② 3,667' FBE | 1266+34 | 1276+63 | ③ 308' FBE & ARO O.C. | 1279+71 | ⑦ 13' FBE | 1279+84 | ② 1,301' FBE | 335 | 1292+85 | ③ 80' FBE & ARO O.C. | 1293+65 | ② 712' FBE | 1300+77

CPS (3D)

TEST SECTIONS (3D) | TEST SECTION 3B-2 ILTO-026-2010

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 OCTOBER 10, 2009 FOR M.P. 301.75 TO M.P. 343.98 AND OCTOBER 31, 2009 FOR M.P. 343.98 TO 377.31.

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 16432+39 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	12,432'
3	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	464'
7	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING	107'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	9 EA
	CATHODIC TEST STATION	4 EA
	AERIAL MARKER	1 EA

REFERENCE DRAWINGS

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

REVISIONS

NO.	DATE	REV. BY	CHCK BY	APPRD BY	ENV. APPRD.	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	10/12/10	UEI				ISSUED FOR AS-BUILT
						1834-03-ML-02-010
						REPLACES COVERAGE OF
						IFC DRAWINGS
						1834-03-ML-02-015,
						1834-03-ML-02-016,
						1834-03-ML-02-017

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/02/15	ENV. APPRD.		
CHECKED BY			APPRD. BY		
			COMPANY APPROVED		

PROFESSIONAL ENGINEER

NAME	STATE	LIC#	REV#	DATE
LOYS ALVIN GRAY, III	SD	CE9004		

SCALE: 0 125 250 500 Feet

TransCanada
In business to deliver

UNIVERSAL PEGASUS INTERNATIONAL

KEYSTONE MAINLINE (NPS 30 2009) CARPENTER SECTION

FIA# 1834 | SPREAD 3B | DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 333.39 TO M.P. 335.86

SHEET 10 OF 20 SHEETS

STA. 1170+74 TO STA. 1300+77 (3D)

DRAWING NO. 1834-03-ML-02-010 | REV. 2