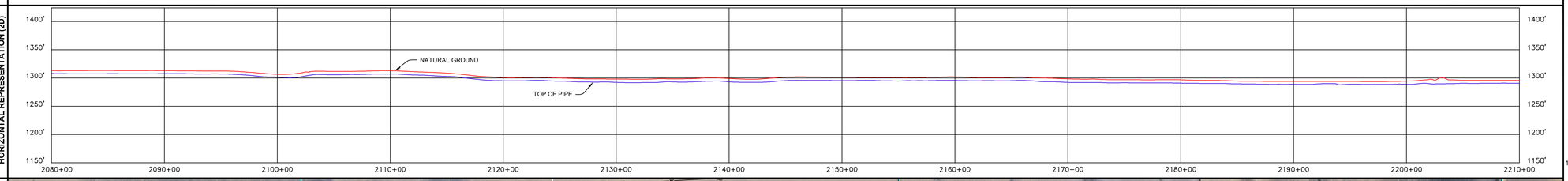
RIGHT-OF-WAY
HORIZONTAL REPRESENTATION (2D)
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

2080+00	ML-ND-SR-0464.0000	RD-ND-SR-0464.0000 96TH STREET	ML-ND-SR-0465.0000	RD-ND-SR-0465.0000 96TH STREET SE	ML-ND-SR-0466.0000	2182+50	ML-ND-SR-0467.0000	RD-ND-SR-0467.0000 119TH AVENUE SE	ML-ND-SR-0469.0000	2210+00
	2102+56		2155+47				2203+01			

LAND USE

PIPELINE PROFILE

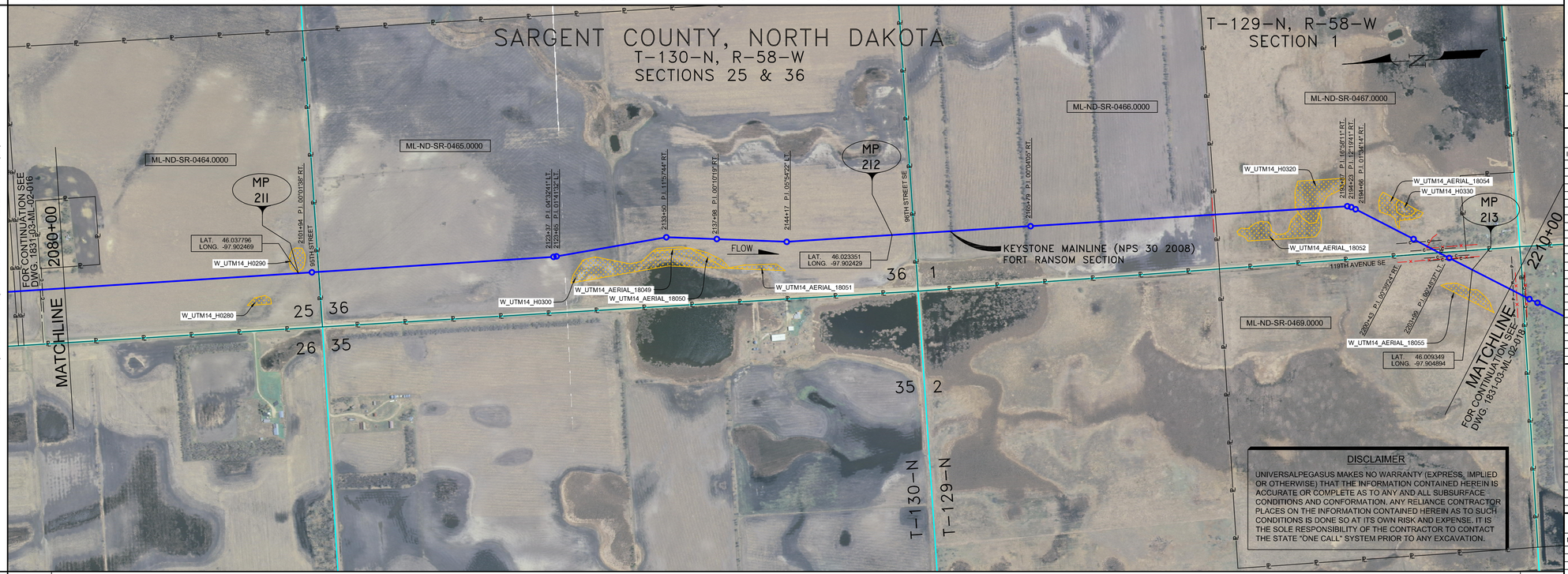
HORIZ. 1"=500' VER. 1"=100'
HORIZONTAL REPRESENTATION (2D)



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

PIPELINE DATA — STATION/DESCRIPTION

HORIZONTAL STATIONS (2D)

MATCHLINE 2080+00
2101+94 P.I. 00°01'38" RT. — EDGE OF ROAD 96TH STREET — EDGE OF ROAD
2102+46 — 2102+66
2123+37 P.I. 04°32'41" LT. — EDGE OF ROAD CL 96TH STREET SE — EDGE OF ROAD
2123+65 P.I. 01°41'32" LT. — 2155+41 — 2155+51
2133+50 P.I. 11°57'44" RT.
2137+88 P.I. 00°10'19" RT.
2144+17 P.I. 05°54'22" LT.
2165+79 P.I. 00°04'05" RT.
2181+96 FENCE (BARBED WIRE)
2188+99 BEGIN SLOUGH
2190+35 CL SLOUGH
2191+81 END SLOUGH
2193+87 P.I. 16°58'11" RT.
2194+23 P.I. 12°19'41" RT.
2194+66 P.I. 01°34'14" RT.
2200+43 P.I. 00°39'24" RT.
2200+98 FIBER OPTIC CABLE
2201+81 FENCE (BARBED WIRE) FENCE — 2202+10
2202+38 FIBER OPTIC CABLE
2202+76 EDGE OF ROAD 119TH AVENUE SE
2203+26 EDGE OF ROAD
2203+76 FIBER OPTIC CABLE
2203+99 P.I. 00°46'37" LT.
2204+07 FENCE (BARBED WIRE) FIBER OPTIC CABLE — 2204+22
MATCHLINE 2210+00

SLOPE STATIONS (3D)

MATCHLINE 2081+89
2102+64 M.P. 211
2103+83 P.I. 00°01'38" RT.
2104+03 6.7' CVR.
2104+34 EDGE OF ROAD 96TH STREET
2104+54 EDGE OF ROAD
2125+26 P.I. 04°32'41" LT.
2125+54 P.I. 01°41'32" LT.
2135+40 P.I. 11°57'44" RT. 6.8' CVR.
2137+97 5.7' CVR.
2138+88 P.I. 00°10'19" RT.
2146+07 P.I. 05°54'22" LT.
2155+44 M.P. 212
2157+31 EDGE OF ROAD CL 96TH STREET SE
2157+42 EDGE OF ROAD
2164+01 5.6' CVR.
2167+70 P.I. 00°04'05" RT.
2183+88 FENCE (BARBED WIRE)
2190+91 BEGIN SLOUGH
2192+27 CL SLOUGH
2193+73 END SLOUGH
2195+15 P.I. 16°58'11" RT.
2196+58 P.I. 12°19'41" RT. 5.4' CVR.
2202+35 P.I. 01°34'14" RT. 7.6' CVR.
2202+91 FIBER OPTIC CABLE 6.5' COVER (ABOVE)
2203+14 FENCE (BARBED WIRE) FENCE
2203+75 FIBER OPTIC CABLE 1.9' CVR. (ABOVE)
2204+03 EDGE OF ROAD 119TH AVENUE SE
2204+31 EDGE OF ROAD 4.1' CVR. (ABOVE)
2204+69 P.I. 00°39'24" RT. 4.9' CVR. (ABOVE)
2205+18 FENCE (BARBED WIRE) FENCE
2205+68 FIBER OPTIC CABLE 4.7' CVR. (ABOVE)
2206+92 P.I. 00°46'37" LT. 4.6' CVR. (ABOVE)
2206+00 FENCE (BARBED WIRE) FIBER OPTIC CABLE
2206+15 4.6' CVR. (ABOVE)
2206+62 4.6' CVR. (ABOVE)
2208+46 M.P. 213
2209+93 2.6' CVR.
MATCHLINE 2211+93

PIPE SLOPE REPRESENTATION (2D)

2081+89
② 2,214' FBE
2104+03 — ③ 80' FBE & ARO O.C. — 2104+83
② 5,214' FBE
2156+97 — ③ 80' FBE & ARO O.C. — 2157+77
② 4,635' FBE
2204+12 — ③ 161' FBE & ARO BR. — 2205+73
② 620' FBE
2211+93

CPS (3D)

TEST SECTIONS (3D)
TEST SECTION 2A-3
ILTO-023-2010

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 07, 2009 FOR M.P. 168.73 TO M.P. 195.68 AND SEPTEMBER 01, 2009 FOR M.P. 195.68 TO M.P. 218.50.

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 9038+16 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	12,683'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	321'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	4 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	CHCK BY	APPRD. BY	ENV. APPRD.	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	6/11/08	UEI	RDG	LAG	SEC	ADDED CROSSING DETAILS
3	10/12/10	UEI				ISSUED FOR AS-BUILT
						1831-03-ML-02-017
						REPLACES COVERAGE OF IFC DRAWINGS
						1831-03-ML-02-027,
						1831-03-ML-02-028

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/01/25	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) FORT RANSOM SECTION

FIA#		
1831	SPREAD 2A	DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 210.61 TO M.P. 213.07

SHEET 17 OF 19 SHEETS

STA. 2081+89 TO STA. 2211+93 (3D)

DRAWING NO. 1831-03-ML-02-017 REV. 3

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