RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)

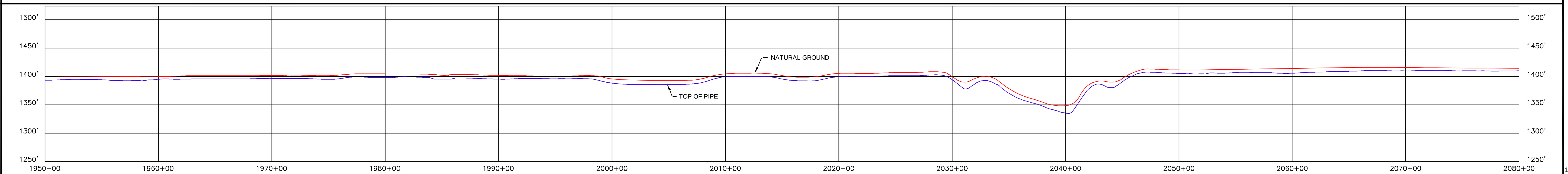
TRACT NUMBER / OWNERSHIP/AGENCY / LENGTH / APPLICABLE DWG. NO.

Station	Tract
1950+00	ML-SD-HU-0888.0000
	RD-SD-HU-0888.0000 433RD AVENUE (1957+67)
	ML-SD-HU-0889.0000
1971+41	ML-SD-HU-0890.0000
	RD-SD-HU-0890.0000 272ND STREET (1984+97)
	ML-SD-HU-0891.0000
1998+60	ML-SD-HU-0893.0000
2009+40	ML-SD-HU-0895.0000
2039+61	ML-SD-HU-0896.0000
	RD-SD-HU-0896.0000 273RD STREET (2053+67)
	ML-SD-HU-0896.0000
2066+51	ML-SD-HU-0899.0000
2070+15	ML-SD-HU-0900.0000
2080+00	

LAND USE

PIPELINE PROFILE

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



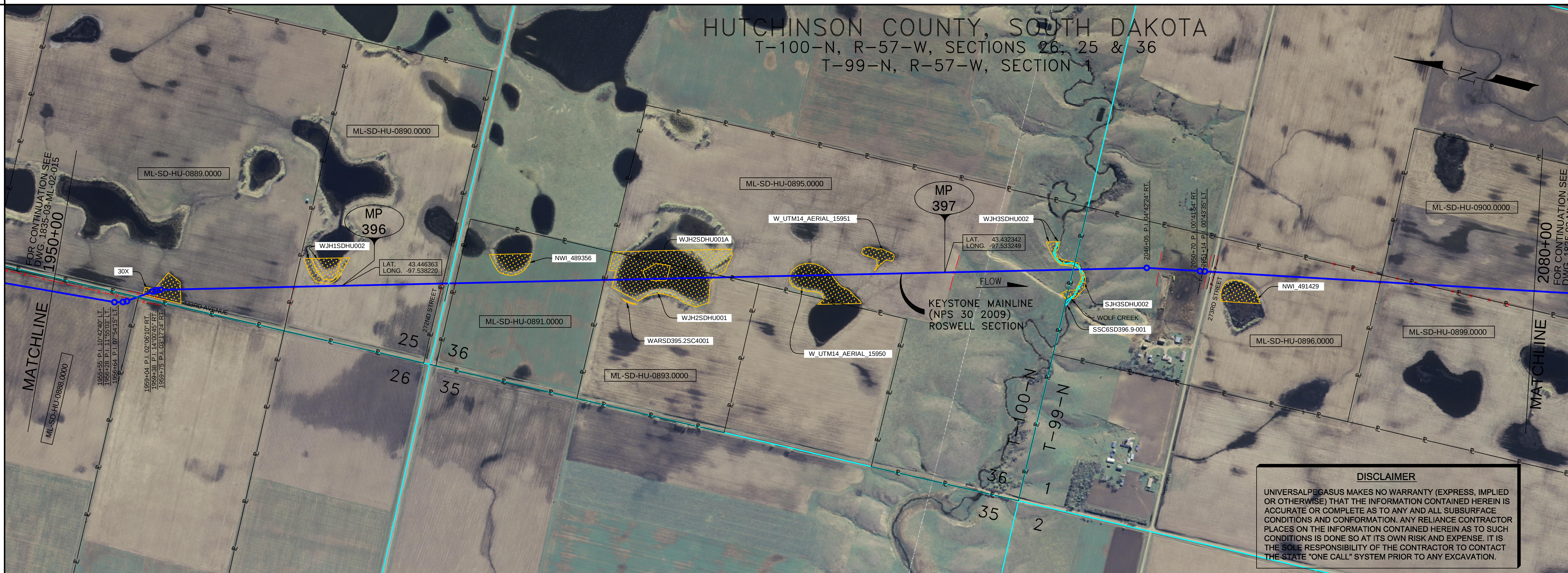
GENERAL NOTES

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 31, 2009 FOR M.P. 343.98 TO 377.31, NOVEMBER 01, 2009 FOR M.P. 377.29 TO 403.97 AND AUGUST 17, 2009 FOR M.P. 403.90 TO 422.96.
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 18931+49 AND DIVIDE BY 5280.

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
- SD 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

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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	12,567'
7	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING	454'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	12 EA
	CATHODIC TEST STATION	1 EA
	AERIAL MARKER	1 EA

REFERENCE DRAWINGS

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

PIPELINE SCHEMATIC

- HEAVYWALL PIPE
- WELD FITTING
- TRANSITION PIECE
- CASING PIPE
- CONCRETE COATING
- (3) SET-ON WEIGHTS
- PIPELINE WARNING SIGN
- PIPELINE MARKER
- (1) MATERIAL ITEM
- GM GROUNDING MAT
- ZINC RIBBON
- (200) 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)

- 1950+00 MATCHLINE
- 1955+55 P.I. 10°42'40" LT.
- 1956+28 P.I. 11°55'03" LT.
- 1956+64 P.I. 07°54'15" LT.
- 1957+16 FENCE (BARBED WIRE)
- 1957+50 EDGE OF ROAD
- 1957+67 CL 433RD AVENUE
- 1957+79 EDGE OF ROAD
- 1958+24 FENCE (BARBED WIRE)
- 1959+04 P.I. 02°06'10" RT.
- 1959+38 P.I. 14°00'45" RT.
- 1959+75 P.I. 03°17'24" RT.
- 1971+41 FENCE (BARBED WIRE)
- 1984+43 FENCE (BARBED WIRE)
- 1984+84 EDGE OF ROAD
- 1984+97 CL 272ND STREET
- 1985+10 EDGE OF ROAD
- 1985+55 FENCE (BARBED WIRE)
- 1998+60 FENCE (BARBED WIRE)
- 1999+17 BEGIN SLOUGH
- 2003+47 CL SLOUGH
- 2008+26 END SLOUGH
- 2029+24 FENCE (BARBED WIRE)
- 2029+85 TOP BANK
- 2030+98 CL DITCH
- 2032+39 TOP BANK
- 2040+01 WATER EDGE
- 2040+25 CL WOLF CREEK
- 2040+35 WATER EDGE
- 2046+05 P.I. 04°42'24" RT.
- 2047+11 FENCE (BARBED WIRE)
- 2050+70 P.I. 00°41'54" RT.
- 2050+96 TELEPHONE LINE
- 2051+14 P.I. 00°43'35" LT.
- 2051+35 FENCE (BARBED WIRE)
- 2051+59 EDGE OF ROAD
- 2051+67 CL 273RD STREET
- 2051+76 EDGE OF ROAD
- 2052+00 FENCE (BARBED WIRE)
- 2052+01 OVERHEAD POWERLINE
- 2066+51 FENCE (BARBED WIRE)
- 2070+15 FENCE (BARBED WIRE)
- 2080+00 MATCHLINE

SLOPE STATIONS (3D)

- 1951+66 MATCHLINE
- 1957+21 P.I. 10°42'40" LT.
- 1957+94 P.I. 11°55'03" LT.
- 1958+31 P.I. 07°54'15" LT.
- 1958+83 FENCE (BARBED WIRE)
- 1959+17 EDGE OF ROAD
- 1959+34 CL 433RD AVENUE
- 1959+46 EDGE OF ROAD
- 1959+91 FENCE (BARBED WIRE)
- 1960+71 P.I. 02°06'10" RT.
- 1961+05 P.I. 14°00'45" RT.
- 1961+41 5.1' CVR.
- 1961+42 P.I. 03°17'24" RT.
- 1973+09 FENCE (BARBED WIRE)
- 1977+31 M.P. 396
- 1986+11 FENCE (BARBED WIRE)
- 1986+52 EDGE OF ROAD
- 1986+65 CL 272ND STREET
- 1986+78 EDGE OF ROAD
- 1987+23 FENCE (BARBED WIRE)
- 2000+29 FENCE (BARBED WIRE)
- 2000+86 BEGIN SLOUGH
- 2005+16 CL SLOUGH
- 2009+95 END SLOUGH
- 2030+11 M.P. 397
- 2030+94 FENCE (BARBED WIRE)
- 2031+56 TOP BANK
- 2032+70 CL DITCH
- 2033+90 9.8' CVR.
- 2034+12 TOP BANK
- 2035+20 11.1' CVR.
- 2041+77 WATER EDGE
- 2042+01 CL WOLF CREEK
- 2042+11 WATER EDGE
- 2047+90 P.I. 04°42'24" RT.
- 2048+96 FENCE (BARBED WIRE)
- 2052+55 P.I. 00°41'54" RT.
- 2052+81 TELEPHONE LINE 5.0' CVR. 3.0' CLR. (ABOVE)
- 2052+99 P.I. 00°43'35" LT.
- 2053+20 FENCE (BARBED WIRE)
- 2053+43 EDGE OF ROAD
- 2053+52 CL 273RD STREET
- 2053+61 EDGE OF ROAD
- 2053+85 FENCE (BARBED WIRE)
- 2053+86 OVERHEAD POWERLINE, HT. = 35'
- 2068+37 FENCE (BARBED WIRE)
- 2072+00 FENCE (BARBED WIRE)
- 2081+87 MATCHLINE

PIPE SLOPE REPRESENTATION (3D)

- 1951+66 — (2) 685' FBE — 1958+51
- 1958+51 — (7) 160' FBE O.C. — 1960+11; aerial marker 395
- 1960+11 — 1973+08 (marker) — (2) 2,595' FBE — 1986+06
- 1986+06 — (7) 119' FBE BR. — 1987+25
- 2000+23, 2000+28 — (111) — 2010+07
- (2) 5,368' FBE
- 2016+85 — (25) — 2020+27
- 2030+95
- 2040+93 — (7) 80' FBE — 2041+73
- 2041+70 — (5) — 2042+15
- (2) 1,141' FBE
- 2048+96
- 2053+14 — (7) 95' FBE O.C. — 2054+09
- 2068+36 — (2) 2,778' FBE — 2072+01
- 2081+87

CPS (3D)

TEST SECTIONS (3D): TEST SECTION 3B-4 ILTO-027-2010

ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)

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

REVISIONS

NO.	DATE	REV. BY	CHCK. BY	APPRD. BY	ENV. APPRD.	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	10/12/14	UEI				ISSUED FOR AS-BUILT 1835-03-ML-02-016 REPLACES COVERAGE OF IFC DRAWINGS 1835-03-ML-02-025, 1835-03-ML-02-026

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/02/22	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 ENSCO, INC.

KEYSTONE MAINLINE (NPS 30 2009) ROSWELL SECTION

FIA# 1835 | SPREAD 3B | DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 395.51 TO M.P. 397.98

SHEET 16 OF 20 SHEETS

STA. 1951+66 TO STA. 2081+87 (3D)

DRAWING NO. 1835-03-ML-02-016 REV. 2