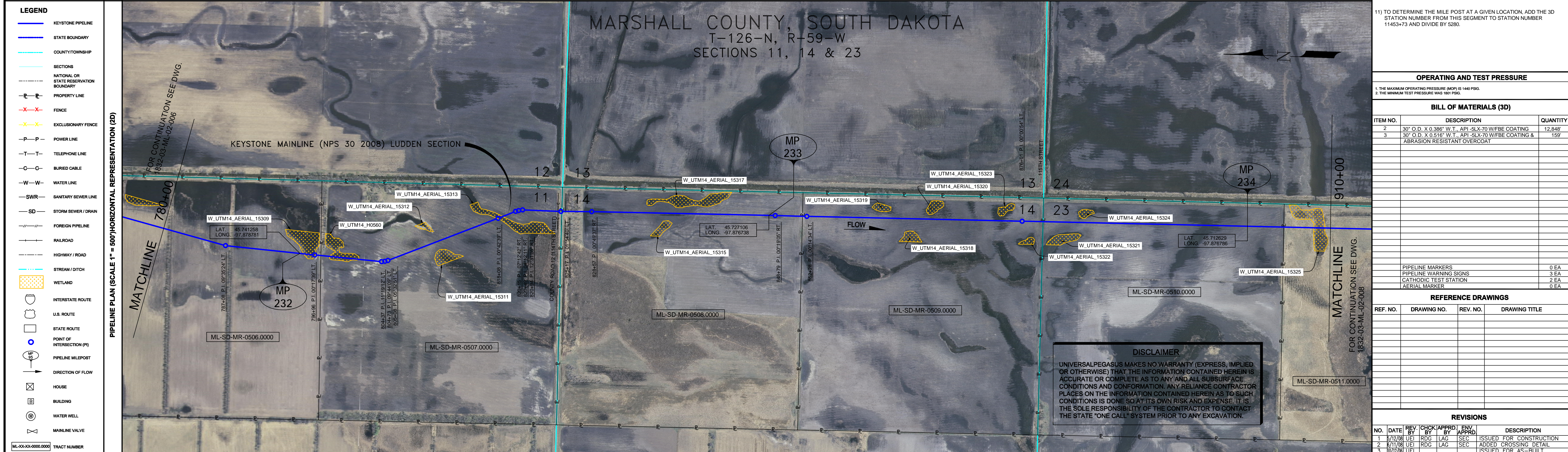


- GENERAL NOTES**
- 1) ALL CHAINAGES ARE IN FEET UNLESS OTHERWISE SPECIFIED.
 - 2) DATUM ELEVATION AND PROJECTION ARE BASED ON MEAN SEA LEVEL AND NAD 83.
 - 3) FIELD PIPE LOCATING REQUIRED TO DETERMINE PLACEMENT OF PIPELINE WITHIN PERMANENT EASEMENT.
 - 4) UNLESS OTHERWISE NOTED, 48 INCHES MINIMUM COVER 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 DENSOL 7200 OR SPC SP-2888.
 - 7) THE SUBSTANTIAL CONSTRUCTION COMPLETION DATE, BASED ON CALIPER PIG RUN, WAS AND SEPTEMBER 01, 2009 FOR M.P. 195.68 TO M.P. 218.50, SEPTEMBER 02, 2009 FOR M.P. 218.50 TO M.P. 259.00 AND OCTOBER 08, 2009 FOR M.P. 259.21 TO M.P. 301.75.
 - 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 11453+73 AND DIVIDE BY 5280.



OPERATING AND TEST PRESSURE

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 1600 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.388" W.T. API-SLX-70 W/FBE COATING	12,848'
3	30" O.D. X 0.516" W.T. API-SLX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	159'
PIPELINE MARKERS		
	PIPELINE WARNING SIGNS	0 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	CHK. BY	APPR. BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	ISSUED FOR CONSTRUCTION
2	5/17/08	UEI	RDG	LAG	ADDED CROSSING DETAIL
3	5/17/08	UEI	RDG	LAG	ISSUED FOR AS-BUILT
					REPLACES COVERAGE OF ITC DRAWINGS
					1832-03-ML-02-010
					1832-03-ML-02-111
					1832-03-ML-02-112

- 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

PIPELINE SCHEMATIC

STATIONING	DESCRIPTION
786+44	4.6 CVR
787+48	4.0 CVR
786+45	M.P. 232
787+16	CL SLOUGH
788+43	CL SLOUGH
788+46	P.I. 0.071739' LT.
789+28	END SLOUGH
789+47	6.3 CVR
804+31	P.I. 1.11812' LT.
804+32	4.7 CVR
804+33	P.I. 0.071739' LT.
804+34	P.I. 0.071739' LT.
804+35	4.1 CVR
818+45	BEGIN SLOUGH
818+46	P.I. 0.071739' LT.
818+47	CL SLOUGH
818+48	P.I. 0.071739' LT.
818+49	6.3 CVR
818+50	END SLOUGH
821+49	P.I. 1.2105' RT.
821+50	P.I. 1.2105' RT.
821+51	P.I. 1.2105' RT.
821+52	P.I. 1.2105' RT.
821+53	P.I. 1.2105' RT.
821+54	BEGIN ROCK SHIELD
825+48	ROAD BAR DITCH
825+49	ROAD BAR DITCH
825+50	EDGE OF ROAD
825+51	CL COUNTY ROAD 12
825+52	P.I. 0.15449' LT.
825+53	EDGE OF ROAD
825+54	ROAD BAR DITCH
825+55	ROAD BAR DITCH
825+56	END ROCK SHIELD
829+12	P.I. 0.074637' RT.
876+01	P.I. 0.070054' LT.
876+02	7.0 CVR
876+03	EDGE OF ROAD
876+04	ROAD BAR DITCH
876+05	EDGE OF ROAD
880+03	6.6 CVR
908+42	BEGIN SLOUGH
908+43	CL SLOUGH
908+44	END SLOUGH

ENGINEERING RECORDS

DRAWN BY	INITIAL	DATE	ENY APPR.	INITIAL	DATE
UEI		10/02/01			

PROFESSIONAL ENGINEER

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

ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)

TEST SECTIONS (3D)	TOPSOIL SALVAGE METHOD	STREAMS	WETLANDS	TIMING CONSTRAINTS	STATIONS	MONITORING	RECLAMATION	SPECIAL CONSIDERATIONS
TEST SECTION 2A-4 ILTO-024-2010								

SCALE: 0 125 250 500 Feet

TransCanada
In business to deliver

KEYSTONE MAINLINE (NPS 30 2008) LUDDEN SECTION
SPREAD 2A DISCIPLINE 03

AS-BUILT ALIGNMENT
M.P. 231.71 TO M.P. 234.17
SHEET 7 OF 19 SHEETS
STA. 780+53 TO STA. 910+60 (3D)

DRAWING NO. 1832-03-ML-02-007 REV. 3