



PIPELINE SCHEMATIC	HORIZONTAL STATIONS (2D)	STATION DESCRIPTION	STATIONS (3D)
HEAVY WALL PIPE	780+00	MATCHLINE 780+00	780+00
WELD FITTING	782+23	EDGE OF ROAD	782+23
TRANSITION PIECE	783+42	EDGE OF ROAD	783+42
CASING PIPE	783+43	EDGE OF ROAD	783+43
CONCRETE COATING	783+43	EDGE OF ROAD	783+43
SET-ON WELDS	783+43	EDGE OF ROAD	783+43
PIPELINE WARNING SIGN	783+43	EDGE OF ROAD	783+43
PIPELINE MARKER	783+43	EDGE OF ROAD	783+43
MATERIAL ITEM	783+43	EDGE OF ROAD	783+43
GROUNDING MAT	783+43	EDGE OF ROAD	783+43
ZINC RIBBON	783+43	EDGE OF ROAD	783+43
AERIAL MARKER	783+43	EDGE OF ROAD	783+43
CATHODIC TEST STATION	783+43	EDGE OF ROAD	783+43
MAINLINE VALVE	783+43	EDGE OF ROAD	783+43
CHECK VALVE	783+43	EDGE OF ROAD	783+43
OPEN CUT	783+43	EDGE OF ROAD	783+43
BORE	783+43	EDGE OF ROAD	783+43
DRINKING WATER USA	783+43	EDGE OF ROAD	783+43
ECOLOGICAL USA	783+43	EDGE OF ROAD	783+43
HIGHLY POPULATED AREA	783+43	EDGE OF ROAD	783+43
OPERATOR (KEYSTONE) DEFINED	783+43	EDGE OF ROAD	783+43
OTHER POPULATED AREA	783+43	EDGE OF ROAD	783+43
SOURCE WATER PROTECTION AREA	783+43	EDGE OF ROAD	783+43
WELLHEAD PROTECTION AREA	783+43	EDGE OF ROAD	783+43

TEST SECTIONS (3D)	TEST SECTIONS (2D)
TOPSOIL SALVAGE METHOD	
STREAMS	
WETLANDS	
TIMING CONSTRAINTS	
STATIONS	
MONITORING	
RECLAMATION	
SPECIAL CONSIDERATIONS	

GENERAL NOTES

- ALL CHAINAGES ARE IN FEET UNLESS OTHERWISE SPECIFIED.
- DATUM ELEVATION AND PROJECTION ARE BASED ON MEAN SEA LEVEL AND NAD 83.
- FIELD PIPE LOCATING REQUIRED TO DETERMINE PLACEMENT OF PIPELINE WITHIN PERMANENT EASEMENT.
- UNLESS OTHERWISE NOTED, 48 INCHES MINIMUM COVER EXCEPT 36 INCHES IN AREAS OF CONSOLIDATED ROCK.
- NO ACTUAL AS-BUILT GROUND SHOTS WERE TAKEN AT THIS LOCATION. THE PROFILE REPRESENTS A PROJECTION FROM SHOTS TAKEN AT 150' TO 250' INTERVALS.
- THE TYPE OF COATING APPLIED TO THE FIELD WELDS DURING THE ORIGINAL CONSTRUCTION WAS TWO COMPONENT LIQUID EPOXY. THE COATING PRODUCTS USED WERE DENSO T200 OR SPO SP-2888.
- THE SUBSTANTIAL CONSTRUCTION COMPLETION DATE, BASED ON CALIPER PIG RUN, WAS AUGUST 07, 2009 FOR M.P. 188.73 TO M.P. 195.68 AND SEPTEMBER 01, 2009 FOR M.P. 195.68 TO M.P. 218.50.
- ORIGINAL IN-SERVICE DATE OF THE KEYSTONE PIPELINE (PHASE 1): JUNE 30, 2010.
- CPS CALCULATION DATE: MAY 2010.
- ORION STATION SERIES NUMBER: 1182700.
- 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

- THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
- THE MINIMUM TEST PRESSURE WAS 900 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
1	30" O.D. X 0.438" W.T. API 5LX-70 WFB COATING	82'
2	30" O.D. X 0.388" W.T. API 5LX-70 WFB COATING	12,582'
3	30" O.D. X 0.516" W.T. API 5LX-70 WFB COATING & ABRASION RESISTANT OVERCOAT	316'
412	MAINLINE VALVE ASSEMBLY FTRSM-15_5-A0-MLV-001 (317)	1 EA
103	30" X 45" 3 DIA RAD WELD FITTING 0.428" W.T. Y-70	1 EA
103A	30" X 45" 3 DIA RAD WELD FITTING 0.428" W.T. Y-70	1 EA

REFERENCE DRAWINGS

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE
412	1831-01-ML-03-118	3	MAINLINE VALVE
	1831-01-ML-03-119	0	MAINLINE VALVE FTRSM+15_5-A0-MLV-001

REVISIONS

NO.	DATE	REV. BY	CHKD. BY	APP'D. BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAC	ISSUE FOR CONSTRUCTION
2	10/17/09	UEI			ISSUED FOR AS-BUILT
					REPLACES COVERAGE OF IFC DRAWINGS
					1831-03-ML-02-010
					1831-03-ML-02-011
					1831-03-ML-02-012

ENGINEERING RECORDS

DRAWN BY	INITIAL	DATE	ENY. APPRD.	INITIAL	DATE
UEI		10/01/25			

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) FORT RANSOM SECTION

AS-BUILT ALIGNMENT

M.P. 185.97 TO M.P. 188.43
SHEET 7 OF 19 SHEETS
STA. 780+80 TO STA. 910+91 (3D)

DRAWING NO. 1831-03-ML-02-007 REV. 2

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