



- 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 DENS0 7200 OR SPC SP-2888.
 - 7) 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.
 - 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 0.388" W.T. API-5L-X70 WFBE COATING	12 777'
3	30" O.D. X 0.516" W.T. API-5L-X70 WFBE COATING & ABRASION RESISTANT OVERCOAT	241'

PIPELINE SCHEMATIC

SYMBOL	DESCRIPTION
[Symbol]	HEAVY WALL PIPE
[Symbol]	WELD FITTING
[Symbol]	TRANSITION PIECE
[Symbol]	CASING PIPE
[Symbol]	CONCRETE COATING
[Symbol]	SET-ON WELDS
[Symbol]	PIPELINE WARNING SIGN
[Symbol]	PIPELINE MARKER
[Symbol]	MATERIAL ITEM
[Symbol]	GROUNDING MAT
[Symbol]	ZINC RIBBON
[Symbol]	AERIAL MARKER
[Symbol]	CATHODIC TEST STATION
[Symbol]	MAINLINE VALVE
[Symbol]	CHECK VALVE
[Symbol]	OPEN CUT
[Symbol]	BORE
[Symbol]	DRINKING WATER USA
[Symbol]	ECOLOGICAL USA
[Symbol]	HIGHLY POPULATED AREA
[Symbol]	OPERATOR (KEYSTONE) DEFINED
[Symbol]	OTHER POPULATED AREA
[Symbol]	SOURCE WATER PROTECTION AREA
[Symbol]	WELLHEAD PROTECTION AREA

REFERENCE DRAWINGS

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

REVISIONS

NO.	DATE	REV. BY	CHECKED BY	APPROVED BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	ISSUED FOR CONSTRUCTION
2	1/28/08	UEI	GTG	LAG	REVISION REROUTE ISSUED FOR AS-BUILT
3	3/12/08	UEI	GTG	LAG	REPLACES COVERAGE OF 1831-03-MI-02-005, 1831-03-MI-02-007, 1831-03-MI-02-008, 1831-03-MI-02-009

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		

ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)

STATION	DESCRIPTION
520+00	MATCHLINE 520+00
522+15	FENCE (BARBED WIRE)
522+48	4.5' C.V. ROAD
522+51	TELEPHONE LINE
522+52	3.0' C.V. (AS BUILT)
522+55	CL PRIVATE DRIVE
522+56	EDGE OF ROAD
522+57	EDGE OF ROAD
522+58	EDGE OF ROAD
522+59	BEGIN SLOUGH
522+78	BEGIN SLOUGH
526+45	CL SLOUGH
526+48	CL SLOUGH
526+49	CL SLOUGH
526+50	CL SLOUGH
526+51	CL SLOUGH
526+52	CL SLOUGH
526+53	END SLOUGH
527+48	POWER LINE
528+35	POWER LINE
528+36	POWER LINE
528+37	POWER LINE
528+38	POWER LINE
528+39	POWER LINE
528+40	POWER LINE
528+41	POWER LINE
528+42	POWER LINE
528+43	POWER LINE
528+44	POWER LINE
528+45	POWER LINE
528+46	POWER LINE
528+47	POWER LINE
528+48	POWER LINE
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528+89	POWER LINE
528+90	POWER LINE
528+91	POWER LINE
528+92	POWER LINE
528+93	POWER LINE
528+94	POWER LINE
528+95	POWER LINE
528+96	POWER LINE
528+97	POWER LINE
528+98	POWER LINE
528+99	POWER LINE
529+00	MATCHLINE 529+00

SCALE: 0 125 250 500 Feet

TransCanada
In business to deliver

KEYSTONE MAINLINE (NPS 30 2008) FORT RANSOM SECTION

AS-BUILT ALIGNMENT

M.P. 181.04 TO M.P. 183.50
SHEET 5 OF 19 SHEETS

STA. 520+58 TO STA. 650+71 (3D)

DRAWING NO. 1831-03-ML-02-005 REV. 3

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