



- 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 SP-2888.
  - 7) THE SUBSTANTIAL CONSTRUCTION COMPLETION DATE, BASED ON CALPER PIG RUN, WAS AUGUST 16, 2009 FOR M.P. 66.90 TO M.P. 88.54, SEPTEMBER 16, 2009 FOR M.P. 88.54 TO M.P. 114.00 AND SEPTEMBER 23, 2009 FOR M.P. 114.00 TO M.P. 130.00.
  - 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 4028+46 AND DIVIDE BY 5260.



**OPERATING AND TEST PRESSURE**

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 1601 PSIG.

**BILL OF MATERIALS (3D)**

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T. API-SLX-70 WFBE COATING	12,774'
3	30" O.D. X 0.516" W.T. API-SLX-70 WFBE COATING & ABRASION RESISTANT OVERCOAT	237'
PIPELINE MARKERS		
	PIPELINE WARNING SIGNS	4 EA
	CATHODIC TEST STATION	2 EA
	AERIAL MARKER	1 EA

**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	LAC	ISSUED FOR CONSTRUCTION
2	11/17/09	UEI			1829-03-ML-02-002 REPLACES COVERAGE OF IFC DRAWINGS
					1829-03-ML-02-002
					1829-03-ML-02-003
					1829-03-ML-02-004

**ENGINEERING RECORDS**

DRAWN BY	INITIAL	DATE	ENY APPROV.	INITIAL	DATE
UEI		10/01/11			

**PROFESSIONAL ENGINEER**

NAME	STATE	LIC#	REV#	DATE
LOYS A. GRAY, III	ND	PE5714		

SCALE: 0 125 250 500 Feet

KEYSTONE MAINLINE (NPS 30 2008) NIAGRA SECTION

SCALE: 0 125 250 500 Feet

AS-BUILT ALIGNMENT

M.P. 78.76 TO M.P. 81.23

SHEET 2 OF 20 SHEETS

STA. 130+13 TO STA. 260+24 (3D)

DRAWING NO. 1829-03-ML-02-002

REV. 2

PIPELINE SCHEMATIC	HORIZONTAL STATIONS (2D)	STATION DESCRIPTION
HEAVY WALL PIPE	130+00	MATCHLINE 130+00
WELD RIBBON	130+23 P.I. 02-3351' RT.	
TRANSITION PIECE	130+41 P.I. 03-4907' RT.	
CASING PIPE	130+81 P.I. 07-4639' RT.	
CONCRETE COATING	131+21 P.I. 08-1931' RT.	
SET ON WELDS		
PIPELINE WARNING SIGN		
PIPELINE MARKER		
MATERIAL ITEM		
GROUNDING MAT	133+78 5.6 CVR.	
ZINC RIBBON		
AERIAL MARKER		
CATHODIC TEST STATION		
MAINLINE VALVE		
CHECK VALVE		
OPEN CUT		
BORE		
DRINKING WATER USA		
ECOLOGICAL USA		
HIGHLY POPULATED AREA		
OPERATOR (KEYSTONE) DEFINED		
OTHER POPULATED AREA		
SOURCE WATER PROTECTION AREA		
WELLHEAD PROTECTION AREA		
TEST SECTIONS (3D)		
TOPSOIL SALVAGE METHOD		
STREAMS		
WETLANDS		
TIMING CONSTRAINTS		
STATIONS		
MONITORING		
RECLAMATION		
SPECIAL CONSIDERATIONS		

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