

DESIGN SPECIFICATIONS – SEGMENT A – NPS 42 PIPELINE

<u>Description</u>	<u>Line Pipe</u>	<u>Units</u>
External Diameter	1067	mm
Wall Thickness	19.05	mm
Grade	483	MPa
Specification	CSA Z245.1	
Material Toughness	CSA Z245.1	
Pipe Coating Specifications	CSA Z245.20	
Cathodic Protection	CGA OCC-1	
Coating	Fusion Bond Epoxy	
Class Location	4	
Design Pressure	6,450	kPa
Hoop Stress at Design Pressure	37.4 % SMYS*	
Maximum Operating Pressure (MOP)	6,450	kPa
Hoop Stress at MOP	37.4 % SMYS*	
Minimum Cover	1.2	m
Fittings	CSA Z245.11	
Flanges	CSA Z245.12	
Valves	CSA Z245.15	
Test Medium	Water	
Strength Test Hydrostatic Pressure	17,247 (@ Low Point)	kPa
Hoop Stress at Strength Test Pressure	100% SMYS*	
Leak Test Hydrostatic Pressure	9,030 (@ High Point)	kPa

\* SMYS – Specified Minimum Yield Strength

DESIGN SPECIFICATIONS – SEGMENT A – NPS 36  
315 m TIE-IN

<u>Description</u>	<u>Line Pipe</u>	<u>Units</u>
External Diameter	914	mm
Wall Thickness	17.5	mm
Grade	448	MPa
Specification	CSA Z245.1	
Material Toughness	CSA Z245.1	
Pipe Coating Specifications	CSA Z245.20	
Cathodic Protection	CGA OCC-1	
Coating	Fusion Bond Epoxy	
Class Location	4	
Design Pressure	4,482	kPa
Hoop Stress at Design Pressure	26.1 % SMYS*	
Maximum Operating Pressure (MOP)	4,482	kPa
Hoop Stress at MOP	26.1% SMYS*	
Minimum Cover	1.2	m
Fittings	CSA Z245.11	
Flanges	CSA Z245.12	
Valves	CSA Z245.15	
Test Medium	Water	
Strength Test Hydrostatic Pressure	17,128 (@ Low Point)	kPa
Hoop Stress at Strength Test Pressure	100% SMYS*	
Leak Test Hydrostatic Pressure	6,300 (@ High Point)	kPa

\* SMYS – Specified Minimum Yield Strength

DESIGN SPECIFICATIONS – SEGMENT B – NPS 36 PIPELINE

<u>Description</u>	<u>Line Pipe</u>	<u>Units</u>
External Diameter	914	mm
Wall Thickness	17.5	mm
Grade	448	MPa
Specification	CSA Z245.1	
Material Toughness	CSA Z245.1	
Pipe Coating Specifications	CSA Z245.20	
Cathodic Protection	CGA OCC-1	
Coating	Fusion Bond Epoxy	
Class Location	4	
Design Pressure	4,482	kPa
Hoop Stress at Design Pressure	26.1% SMYS*	
Maximum Operating Pressure (MOP)	4,482	kPa
Hoop Stress at MOP	26.1% SMYS*	
Minimum Cover	1.2	m
Fittings	CSA Z245.11	
Flanges	CSA Z245.12	
Valves	CSA Z245.15	
Test Medium	Water	
Strength Test Hydrostatic Pressure	17,128 (@ Low Point)	kPa
Hoop Stress at Strength Test Pressure	100% SMYS*	
Leak Test Hydrostatic Pressure	6,300 (@ High Point)	kPa

\* SMYS – Specified Minimum Yield Strength