




 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Tensile & Chemistry																Friday, July 28, 2017, 12:09:21						
																		Certificate ID: 175163-3						
																		Customer PO: 44771						
		Customer: ALBERTA PRODUCTS PIPE LINE LTD.																Mill Order No: WA 054608-01						
						Diameter: 323.9 mm				Wall Thickness: 9.500 mm				Grade: GR.414-2										
						Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																		
Supplier - Heat		Product ID		Test Type		Orientation				Width (mm)		YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T		CEQ		Ca	Ce	SoAl
				Wgt (%)		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B			
EVRAZ Regina - 406708		AE-120D 7891-N	AE-120D 7891-N	PIPE TPA		PIPE TPA				38.049		487		611		35.8		0.80						
		AE-120D 7891-N	AE-120D 7891-N	MILL CONTROL		PIPE TWA				37.910				675		0.0		0.00						
				Heat:	0.05	1.37	0.015	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.008	0.02	0.0003	0.23	0.0016	0.000	0.036
		AE-120D 857	AE-120D 857	Product:	0.05	1.37	0.014	0.002	0.16	0.31	0.16	0.18	0.11	0.011	0.036	0.00	0.07	0.008	0.02	0.0002	0.23	0.0021	0.000	0.035
		AE-120D 858	AE-120D 858	Product:	0.05	1.37	0.014	0.002	0.16	0.31	0.17	0.18	0.11	0.011	0.035	0.00	0.07	0.009	0.02	0.0002	0.23	0.0016	0.000	0.034
		AE-120D 80011	AE-120D 80011	Product:	0.05	1.37	0.014	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.009	0.02	0.0001	0.23	0.0013	0.000	0.036
		AE-120D 80012	AE-120D 80012	Product:	0.05	1.38	0.013	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.008	0.02	0.0001	0.23	0.0014	0.000	0.036
EVRAZ Regina - 525473		AE-120D 7006-L	AE-120D 7006-L	MILL CONTROL		PIPE TPA				38.120		494		621		35.4		0.80						
		AE-120D 7006-L	AE-120D 7006-L	MILL CONTROL		PIPE TWA				38.179				664		0.0		0.00						
				Heat:	0.05	1.34	0.012	0.002	0.14	0.39	0.17	0.08	0.11	0.012	0.041	0.00	0.07	0.011	0.02	0.0002	0.22	0.0034	0.001	0.040
		AE-120D A0005	AE-120D A0005	Product:	0.05	1.33	0.011	0.001	0.14	0.37	0.16	0.08	0.11	0.012	0.046	0.00	0.07	0.010	0.02	0.0001	0.21	0.0028	0.000	0.043
		AE-120D A0006	AE-120D A0006	Product:	0.05	1.33	0.011	0.002	0.16	0.38	0.17	0.09	0.11	0.013	0.043	0.00	0.07	0.010	0.02	0.0002	0.22	0.0029	0.000	0.040
EVRAZ Regina - 525474		AE-120D 7671-J	AE-120D 7671-J	MILL CONTROL		PIPE TPA				38.151		512		615		34.6		0.83						
		AE-120D 7671-J	AE-120D 7671-J	MILL CONTROL		PIPE TWA				38.130				673		0.0		0.00						
				Heat:	0.04	1.33	0.011	0.001	0.21	0.38	0.16	0.09	0.10	0.012	0.039	0.00	0.07	0.009	0.02	0.0003	0.21	0.0039	0.001	0.038
		AE-120D A0011	AE-120D A0011	Product:	0.04	1.32	0.012	0.001	0.21	0.38	0.16	0.09	0.10	0.013	0.041	0.00	0.07	0.009	0.02	0.0002	0.21	0.0035	0.000	0.038
		AE-120D A0012	AE-120D A0012	Product:	0.04	1.32	0.012	0.001	0.21	0.38	0.16	0.09	0.10	0.013	0.041	0.00	0.07	0.009	0.02	0.0002	0.21	0.0031	0.000	0.038
EVRAZ Regina - 525475		AE-120D 7386-L	AE-120D 7386-L	MILL CONTROL		PIPE TPA				38.080		514		599		32.9		0.86						
		AE-120D 7386-L	AE-120D 7386-L	MILL CONTROL		PIPE TWA				38.110				651		0.0		0.00						
				Heat:	0.04	1.33	0.014	0.003	0.15	0.25	0.15	0.10	0.11	0.009	0.040	0.00	0.07	0.009	0.02	0.0002	0.21	0.0032	0.000	0.038
		AE-120D A0018	AE-120D A0018	Product:	0.04	1.32	0.014	0.002	0.15	0.24	0.15	0.10	0.11	0.009	0.042	0.00	0.07	0.009	0.02	0.0002	0.20	0.0029	0.000	0.039
		AE-120D A0019	AE-120D A0019	Product:	0.04	1.31	0.014	0.003	0.14	0.24	0.13	0.10	0.11	0.010	0.039	0.00	0.07	0.009	0.02	0.0002	0.20	0.0028	0.000	0.036
EVRAZ Regina - 525476		AE-120D 7110-V	AE-120D 7110-V	MILL CONTROL		PIPE TPA				38.171		529		604		34.0		0.87						
		AE-120D 7110-V	AE-120D 7110-V	MILL CONTROL		PIPE TWA				38.090				647		0.0		0.00						
				Heat:	0.05	1.32	0.013	0.002	0.12	0.26	0.12	0.10	0.11	0.009	0.034	0.00	0.07	0.010	0.02	0.0002	0.21	0.0035	0.001	0.033
		AE-120D A0024	AE-120D A0024	Product:	0.05	1.31	0.013	0.002	0.12	0.25	0.11	0.11	0.11	0.010	0.034	0.00	0.07	0.009	0.02	0.0002	0.21	0.0025	0.000	0.028
		AE-120D A0025	AE-120D A0025	Product:	0.05	1.31	0.013	0.002	0.12	0.26	0.11	0.11	0.11	0.011	0.034	0.00	0.07	0.010	0.02	0.0002	0.21	0.0030	0.000	0.028
EVRAZ Regina - 525477		AE-120D 7287-L	AE-120D 7287-L	MILL CONTROL		PIPE TPA				38.039		513		597		30.6		0.86						
		AE-120D 7287-L	AE-120D 7287-L	MILL CONTROL		PIPE TWA				38.049				652		0.0		0.00						
				Heat:	0.05	1.35	0.013	0.001	0.13	0.29	0.10	0.10	0.10	0.014	0.035	0.00	0.07	0.008	0.02	0.0002	0.21	0.0032	0.001	0.035
		AE-120D A0031	AE-120D A0031	Product:	0.04	1.35	0.014	0.001	0.14	0.29	0.11	0.10	0.11	0.016	0.037	0.00	0.07	0.008	0.02	0.0001	0.21	0.0023	0.000	0.031
		AE-120D A0032	AE-120D A0032	Product:	0.04	1.35	0.014	0.002	0.13	0.29	0.11	0.10	0.11	0.016	0.037	0.00	0.07	0.009	0.02	0.0001	0.21	0.0023	0.000	0.031
EVRAZ Regina - 525478		AE-120D 7761-K	AE-120D 7761-K	MILL CONTROL		PIPE TPA				38.049		507		590		34.0		0.86						
		AE-120D 7761-K	AE-120D 7761-K	MILL CONTROL		PIPE TWA				38.141				657		0.0		0.00						
				Heat:	0.05	1.35	0.013	0.001	0.13	0.32	0.14	0.08	0.11	0.010	0.027	0.00	0.07	0.009	0.01	0.0002	0.22	0.0031	0.000	0.025
		AE-120D 80005	AE-120D 80005	Product:	0.05	1.32	0.013	0.001	0.13	0.31	0.14	0.09	0.11	0.011	0.028	0.00	0.07	0.009	0.01	0.0002	0.21	0.0026	0.000	0.025
		AE-120D 80006	AE-120D 80006	Product:	0.05	1.33	0.013	0.002	0.13	0.30	0.13	0.09	0.11	0.011	0.028	0.00	0.07	0.010	0.01	0.0002	0.22	0.0027	0.000	0.023
EVRAZ Regina - 525479		AE-120D 7491-T	AE-120D 7491-T	MILL CONTROL		PIPE TPA				38.130		488		594		34.3		0.82						
		AE-120D 7491-T	AE-120D 7491-T	MILL CONTROL																				


 Camrose ERW		EVRAZ Camrose															Friday, July 28, 2017, 12:09:21												
		CERTIFICATE OF TESTING															Certificate ID: 175163-3												
		Tensile & Chemistry															Customer PO: 44771												
Customer: ALBERTA PRODUCTS PIPE LINE LTD.										Diameter: 323.9 mm					Wall Thickness: 9.500 mm					Grade: GR.414-2					Mill Order No: WA 054608-01				
										Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																			
Supplier - Heat		Product ID		Test Type			Orientation			Width (mm)			YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T										
TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched				Wgt (%)	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl					
				Minimum Weld Seam Heat Treatment Temperature: 900 (C)															 Jamie Mohler										
				Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel																									

form crtr3001XL



 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Tensile & Chemistry																Friday, July 28, 2017, 13:03:27						
		Certificate ID: 175170-3																						
		Customer PO:																						
		Mill Order No: WA 054608-02																						
Customer: ALBERTA PRODUCTS PIPE LINE LTD.		Diameter: 323.9 mm								Wall Thickness: 9.500 mm				Grade: GR.414-2										
		Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																						
Supplier - Heat		Product ID		Test Type		Orientation				Width (mm)		YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T		CEQ		Ca	Ce	SoAl
				Wgt (%)		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B			
EVRAZ Regina - 406708		AE-120D 7891-N	AE-120D 7891-N	PIPE TPA		PIPE TPA				38.049		487		611		35.8		0.80						
		AE-120D 7891-N	AE-120D 7891-N	MILL CONTROL		PIPE TWA				37.910				675		0.0		0.00						
				Heat:	0.05	1.37	0.015	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.008	0.02	0.0003	0.23	0.0016	0.000	0.036
		AE-120D 857	AE-120D 857	Product:	0.05	1.37	0.014	0.002	0.16	0.31	0.16	0.18	0.11	0.011	0.036	0.00	0.07	0.008	0.02	0.0002	0.23	0.0021	0.000	0.035
		AE-120D 858	AE-120D 858	Product:	0.05	1.37	0.014	0.002	0.16	0.31	0.17	0.18	0.11	0.011	0.035	0.00	0.07	0.009	0.02	0.0002	0.23	0.0016	0.000	0.034
		AE-120D B0011	AE-120D B0011	Product:	0.05	1.37	0.014	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.009	0.02	0.0001	0.23	0.0013	0.000	0.036
		AE-120D B0012	AE-120D B0012	Product:	0.05	1.38	0.013	0.002	0.17	0.30	0.17	0.18	0.11	0.011	0.038	0.00	0.07	0.008	0.02	0.0001	0.23	0.0014	0.000	0.036
EVRAZ Regina - 525473		AE-120D 7006-L	AE-120D 7006-L	MILL CONTROL		PIPE TPA				38.120		494		621		35.4		0.80						
		AE-120D 7006-L	AE-120D 7006-L	MILL CONTROL		PIPE TWA				38.179				664		0.0		0.00						
				Heat:	0.05	1.34	0.012	0.002	0.14	0.39	0.17	0.08	0.11	0.012	0.041	0.00	0.07	0.011	0.02	0.0002	0.22	0.0034	0.001	0.040
		AE-120D A0005	AE-120D A0005	Product:	0.05	1.33	0.011	0.001	0.14	0.37	0.16	0.08	0.11	0.012	0.046	0.00	0.07	0.010	0.02	0.0001	0.21	0.0028	0.000	0.043
		AE-120D A0006	AE-120D A0006	Product:	0.05	1.33	0.011	0.002	0.16	0.38	0.17	0.09	0.11	0.013	0.043	0.00	0.07	0.010	0.02	0.0002	0.22	0.0029	0.000	0.040
EVRAZ Regina - 525474		AE-120D 7671-J	AE-120D 7671-J	MILL CONTROL		PIPE TPA				38.151		512		615		34.6		0.83						
		AE-120D 7671-J	AE-120D 7671-J	MILL CONTROL		PIPE TWA				38.130				673		0.0		0.00						
				Heat:	0.04	1.33	0.011	0.001	0.21	0.38	0.16	0.09	0.10	0.012	0.039	0.00	0.07	0.009	0.02	0.0003	0.21	0.0039	0.001	0.038
		AE-120D A0011	AE-120D A0011	Product:	0.04	1.32	0.012	0.001	0.21	0.38	0.16	0.09	0.10	0.013	0.041	0.00	0.07	0.009	0.02	0.0002	0.21	0.0035	0.000	0.038
		AE-120D A0012	AE-120D A0012	Product:	0.04	1.32	0.012	0.001	0.21	0.38	0.16	0.09	0.10	0.013	0.041	0.00	0.07	0.009	0.02	0.0002	0.21	0.0031	0.000	0.038
EVRAZ Regina - 525475		AE-120D 7386-L	AE-120D 7386-L	MILL CONTROL		PIPE TPA				38.080		514		599		32.9		0.86						
		AE-120D 7386-L	AE-120D 7386-L	MILL CONTROL		PIPE TWA				38.110				651		0.0		0.00						
				Heat:	0.04	1.33	0.014	0.003	0.15	0.25	0.15	0.10	0.11	0.009	0.040	0.00	0.07	0.009	0.02	0.0002	0.21	0.0032	0.000	0.038
		AE-120D A0018	AE-120D A0018	Product:	0.04	1.32	0.014	0.002	0.15	0.24	0.15	0.10	0.11	0.009	0.042	0.00	0.07	0.009	0.02	0.0002	0.20	0.0029	0.000	0.039
		AE-120D A0019	AE-120D A0019	Product:	0.04	1.31	0.014	0.003	0.14	0.24	0.13	0.10	0.11	0.010	0.039	0.00	0.07	0.009	0.02	0.0002	0.20	0.0028	0.000	0.036
EVRAZ Regina - 525476		AE-120D 7110-V	AE-120D 7110-V	MILL CONTROL		PIPE TPA				38.171		529		604		34.0		0.87						
		AE-120D 7110-V	AE-120D 7110-V	MILL CONTROL		PIPE TWA				38.090				647		0.0		0.00						
				Heat:	0.05	1.32	0.013	0.002	0.12	0.26	0.12	0.10	0.11	0.009	0.034	0.00	0.07	0.010	0.02	0.0002	0.21	0.0035	0.001	0.033
		AE-120D A0024	AE-120D A0024	Product:	0.05	1.31	0.013	0.002	0.12	0.25	0.11	0.11	0.11	0.010	0.034	0.00	0.07	0.009	0.02	0.0002	0.21	0.0025	0.000	0.028
		AE-120D A0025	AE-120D A0025	Product:	0.05	1.31	0.013	0.002	0.12	0.26	0.11	0.11	0.11	0.011	0.034	0.00	0.07	0.010	0.02	0.0002	0.21	0.0030	0.000	0.028
EVRAZ Regina - 525477		AE-120D 7287-L	AE-120D 7287-L	MILL CONTROL		PIPE TPA				38.039		513		597		30.6		0.86						
		AE-120D 7287-L	AE-120D 7287-L	MILL CONTROL		PIPE TWA				38.049				652		0.0		0.00						
				Heat:	0.05	1.35	0.013	0.001	0.13	0.29	0.10	0.10	0.10	0.014	0.035	0.00	0.07	0.008	0.02	0.0002	0.21	0.0032	0.001	0.035
		AE-120D A0031	AE-120D A0031	Product:	0.04	1.35	0.014	0.001	0.14	0.29	0.11	0.10	0.11	0.016	0.037	0.00	0.07	0.008	0.02	0.0001	0.21	0.0023	0.000	0.031
		AE-120D A0032	AE-120D A0032	Product:	0.04	1.35	0.014	0.002	0.13	0.29	0.11	0.10	0.11	0.016	0.037	0.00	0.07	0.009	0.02	0.0001	0.21	0.0023	0.000	0.031
EVRAZ Regina - 525478		AE-120D 7761-K	AE-120D 7761-K	MILL CONTROL		PIPE TPA				38.049		507		590		34.0		0.86						
		AE-120D 7761-K	AE-120D 7761-K	MILL CONTROL		PIPE TWA				38.141				657		0.0		0.00						
				Heat:	0.05	1.35	0.013	0.001	0.13	0.32	0.14	0.08	0.11	0.010	0.027	0.00	0.07	0.009	0.01	0.0002	0.22	0.0031	0.000	0.025
		AE-120D B0005	AE-120D B0005	Product:	0.05	1.32	0.013	0.001	0.13	0.31	0.14	0.09	0.11	0.011	0.028	0.00	0.07	0.009	0.01	0.0002	0.21	0.0026	0.000	0.025
		AE-120D B0006	AE-120D B0006	Product:	0.05	1.33	0.013	0.002	0.13	0.30	0.13	0.09	0.11	0.011	0.028	0.00	0.07	0.010	0.01	0.0002	0.22	0.0027	0.000	0.023
EVRAZ Regina - 525479		AE-120D 7491-T	AE-120D 7491-T	MILL CONTROL		PIPE TPA				38.130		488		594		34.3		0.82						
		AE-120D 7491-T	AE-120D 7491-T	MILL CONTROL																				



 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Tensile & Chemistry															Friday, July 28, 2017, 13:03:27												
																	Certificate ID: 175170-3												
																	Customer PO:												
Customer: ALBERTA PRODUCTS PIPE LINE LTD.										Diameter: 323.9 mm					Wall Thickness: 9.500 mm					Grade: GR.414-2					Mill Order No: WA 054608-02				
										Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																			
Supplier - Heat		Product ID		Test Type			Orientation			Width (mm)			YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T										
Wgt (%)		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl								
TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched		Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel																											
		 Jamie Mohler																											

form crtr3001XL



<div><div><div></div><div>EVRAZ</div></div><div>Camrose ERW</div></div> <div><div>EVRAZ Camrose</div><div>CERTIFICATE OF TESTING</div><div>Charpy</div></div>															Friday, July 28, 2017, 12:09:21			
															Certificate ID: 175163-1			
															Customer PO: 44771			
Customer: ALBERTA PRODUCTS PIPE LINE LTD.					Diameter: 323.9 mm Wall Thickness: 9.500 mm Grade: GR.414-2										Mill Order No: WA 054608-01			
					Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements													
Supplier - Heat		Product ID		Test Type	Orientation	Temp C	Energy (Joules)				Percent Shear				Test Position	Size	Flat	
							#1	#2	#3	Avg	#1	#2	#3	Avg				
EVRAZ Regina - 406708		AE-120D	CC857 7891-N	MILL CONTROL	PIPE TPA	-45	149	151	146	149	100	100	100	100	90	2/3		
		AE-120D	CC857 7891-N	MILL CONTROL	PIPE TWA	-45	85	91	82	86	50	50	50	50	WMZ	2/3		
EVRAZ Regina - 525473		AE-120D	CC707 7006-L	MILL CONTROL	PIPE TPA	-45	121	134	122	126	100	100	100	100	90	2/3		
		AE-120D	CC707 7006-L	MILL CONTROL	PIPE TWA	-45	83	93	72	83	70	85	65	73	WMZ	2/3		
EVRAZ Regina - 525474		AE-120D	CC753 7671-J	MILL CONTROL	PIPE TPA	-45	135	150	168	151	100	100	100	100	90	2/3		
		AE-120D	CC753 7671-J	MILL CONTROL	PIPE TWA	-45	143	120	120	128	95	90	90	92	WMZ	2/3		
EVRAZ Regina - 525475		AE-120D	CC734 7386-L	MILL CONTROL	PIPE TPA	-45	133	162	169	155	100	100	100	100	90	2/3		
		AE-120D	CC734 7386-L	MILL CONTROL	PIPE TWA	-45	101	115	122	113	100	100	100	100	WMZ	2/3		
EVRAZ Regina - 525476		AE-120D	CC715 7110-V	MILL CONTROL	PIPE TPA	-45	127	128	118	124	100	100	100	100	90	2/3		
		AE-120D	CC715 7110-V	MILL CONTROL	PIPE TWA	-45	106	101	101	103	100	90	90	93	WMZ	2/3		
EVRAZ Regina - 525477		AE-120D	CC727 7287-L	MILL CONTROL	PIPE TPA	-45	160	132	151	148	100	100	100	100	90	2/3		
		AE-120D	CC727 7287-L	MILL CONTROL	PIPE TWA	-45	116	127	110	118	100	100	100	100	WMZ	2/3		
EVRAZ Regina - 525478		AE-120D	CC759 7761-K	MILL CONTROL	PIPE TPA	-45	191	201	187	193	100	100	100	100	90	2/3		
		AE-120D	CC759 7761-K	MILL CONTROL	PIPE TWA	-45	137	142	118	132	95	95	75	88	WMZ	2/3		
EVRAZ Regina - 525479		AE-120D	CC741 7491-T	MILL CONTROL	PIPE TPA	-45	177	194	210	194	100	100	100	100	90	2/3		
		AE-120D	CC741 7491-T	MILL CONTROL	PIPE TWA	-45	74	65	86	75	45	45	45	45	WMZ	2/3		
EVRAZ Regina - 525480		AE-120D	CC747 7581-V	MILL CONTROL	PIPE TPA	-45	164	153	149	155	100	100	100	100	90	2/3		
		AE-120D	CC747 7581-V	MILL CONTROL	PIPE TWA	-45	108	103	111	107	75	75	75	75	WMZ	2/3		
EVRAZ Regina - 525481		AE-120D	CC721 7199-H	MILL CONTROL	PIPE TPA	-45	126	121	126	124	100	100	100	100	90	2/3		
		AE-120D	CC721 7199-H	MILL CONTROL	PIPE TWA	-45	101	95	90	95	90	85	85	87	WMZ	2/3		
EVRAZ Regina - 525749		AE-120D	CC856 7869-H	MILL CONTROL	PIPE TWA	-45	160	232	189	194	100	100	100	100	WMZ	2/3		
		AE-120D	CC856 7869-S	MILL CONTROL	PIPE TPA	-45	160	138	170	156	100	100	100	100	90	2/3		
TPA - Tranverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Tranverse Weld Axis PST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched FS - Full Size		FSE Acceptance Criteria: Body: 54 WMZ: 27 HAZ: 0 23100 KPA for 10 secs Minimum Weld Seam Heat Treatment Temperature: 900 (C) Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel									We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler							

form crtr3004XL


<div><div>Camrose ERW</div></div> <div><div>EVRAZ Camrose</div><div>CERTIFICATE OF TESTING</div><div>Charpy</div></div>															Friday, July 28, 2017, 13:03:27								
															Certificate ID: 175170-1								
															Customer PO:								
Customer: ALBERTA PRODUCTS PIPE LINE LTD.					Diameter: 323.9 mm					Wall Thickness: 9.500 mm					Grade: GR.414-2					Mill Order No: WA 054608-02			
										Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements													
Supplier - Heat			Product ID		Test Type	Orientation	Temp C	Energy (Joules)				Percent Shear				Test Position	Size	Flat					
								#1	#2	#3	Avg	#1	#2	#3	Avg								
EVRAZ Regina - 406708			AE-120D CC857 7891-N		MILL CONTROL	PIPE TPA	-45	149	151	146	149	100	100	100	100	90	2/3						
			AE-120D CC857 7891-N		MILL CONTROL	PIPE TWA	-45	85	91	82	86	50	50	50	50	WMZ	2/3						
EVRAZ Regina - 525473			AE-120D CC707 7006-L		MILL CONTROL	PIPE TPA	-45	121	134	122	126	100	100	100	100	90	2/3						
			AE-120D CC707 7006-L		MILL CONTROL	PIPE TWA	-45	83	93	72	83	70	85	65	73	WMZ	2/3						
EVRAZ Regina - 525474			AE-120D CC753 7671-J		MILL CONTROL	PIPE TPA	-45	135	150	168	151	100	100	100	100	90	2/3						
			AE-120D CC753 7671-J		MILL CONTROL	PIPE TWA	-45	143	120	120	128	95	90	90	92	WMZ	2/3						
EVRAZ Regina - 525475			AE-120D CC734 7386-L		MILL CONTROL	PIPE TPA	-45	133	162	169	155	100	100	100	100	90	2/3						
			AE-120D CC734 7386-L		MILL CONTROL	PIPE TWA	-45	101	115	122	113	100	100	100	100	WMZ	2/3						
EVRAZ Regina - 525476			AE-120D CC715 7110-V		MILL CONTROL	PIPE TPA	-45	127	128	118	124	100	100	100	100	90	2/3						
			AE-120D CC715 7110-V		MILL CONTROL	PIPE TWA	-45	106	101	101	103	100	90	90	93	WMZ	2/3						
EVRAZ Regina - 525477			AE-120D CC727 7287-L		MILL CONTROL	PIPE TPA	-45	160	132	151	148	100	100	100	100	90	2/3						
			AE-120D CC727 7287-L		MILL CONTROL	PIPE TWA	-45	116	127	110	118	100	100	100	100	WMZ	2/3						
EVRAZ Regina - 525478			AE-120D CC759 7761-K		MILL CONTROL	PIPE TPA	-45	191	201	187	193	100	100	100	100	90	2/3						
			AE-120D CC759 7761-K		MILL CONTROL	PIPE TWA	-45	137	142	118	132	95	95	75	88	WMZ	2/3						
EVRAZ Regina - 525479			AE-120D CC741 7491-T		MILL CONTROL	PIPE TPA	-45	177	194	210	194	100	100	100	100	90	2/3						
			AE-120D CC741 7491-T		MILL CONTROL	PIPE TWA	-45	74	65	86	75	45	45	45	45	WMZ	2/3						
EVRAZ Regina - 525480			AE-120D CC747 7581-V		MILL CONTROL	PIPE TPA	-45	164	153	149	155	100	100	100	100	90	2/3						
			AE-120D CC747 7581-V		MILL CONTROL	PIPE TWA	-45	108	103	111	107	75	75	75	75	WMZ	2/3						
EVRAZ Regina - 525481			AE-120D CC721 7199-H		MILL CONTROL	PIPE TPA	-45	126	121	126	124	100	100	100	100	90	2/3						
			AE-120D CC721 7199-H		MILL CONTROL	PIPE TWA	-45	101	95	90	95	90	85	85	87	WMZ	2/3						
EVRAZ Regina - 525749			AE-120D CC856 7869-H		MILL CONTROL	PIPE TWA	-45	160	232	189	194	100	100	100	100	WMZ	2/3						
			AE-120D CC856 7869-S		MILL CONTROL	PIPE TPA	-45	160	138	170	156	100	100	100	100	90	2/3						
TPA - Tranverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Tranverse Weld Axis PST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched FS - Full Size			Flattening Test Acceptable 23100 KPA for 10 secs Ultrasonic Weld Line Inspection Acceptable Minimum Weld Seam Heat Treatment Temperature: 900 (C) High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler										



 Camrose ERW		EVRAZ Camrose																	Friday, July 28, 2017, 12:09:21						
		CERTIFICATE OF TESTING																	Certificate ID: 175163-2						
		Macro Hardness																	Customer PO: 44771						
Customer: ALBERTA PRODUCTS PIPE LINE LTD.				Diameter: 323.9 mm Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements										Wall Thickness: 9.500 mm Grade: GR.414-2						Mill Order No: WA 054608-01					
Supplier - Heat		Product ID	Test Type	Scale	MS	Location	PM			HAZ			WMZ			HAZ			PM			AVERAGES			
																					PM	HAZ	WMZ		
EVRAZ Regina - 406708		AE-120D CC857 7891-N	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	56.1	0.0	0.0	57.9	0.0	0.0	0.0	57.9	0.0	0.0	57.1	0.0	0.0	56.9	57.0	57.9
		AE-120D CC857 7891-N	MILL CONTROL	Rockwell A	OK	ID	56.5	0.0	0.0	54.1	0.0	0.0	55.6	0.0	0.0	0.0	55.1	0.0	0.0	56.8	0.0	0.0	56.7	54.6	55.6
EVRAZ Regina - 525473		AE-120D CC707 7006-L	MILL CONTROL	Rockwell A	OK	OD	54.4	0.0	0.0	54.8	0.0	0.0	56.7	0.0	0.0	0.0	56.4	0.0	0.0	54.3	0.0	0.0	54.4	55.6	56.7
		AE-120D CC707 7006-L	MILL CONTROL	Rockwell A	OK	ID	54.6	0.0	0.0	52.7	0.0	0.0	55.0	0.0	0.0	0.0	54.2	0.0	0.0	56.3	0.0	0.0	55.5	53.5	55.0
EVRAZ Regina - 525474		AE-120D CC753 7671-J	MILL CONTROL	Rockwell A	OK	OD	56.2	0.0	0.0	55.3	0.0	0.0	57.8	0.0	0.0	0.0	57.3	0.0	0.0	56.4	0.0	0.0	56.3	56.3	57.8
		AE-120D CC753 7671-J	MILL CONTROL	Rockwell A	OK	ID	56.4	0.0	0.0	54.1	0.0	0.0	55.7	0.0	0.0	0.0	54.4	0.0	0.0	56.3	0.0	0.0	56.4	54.3	55.7
EVRAZ Regina - 525475		AE-120D CC734 7386-L	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	55.6	0.0	0.0	58.0	0.0	0.0	0.0	57.5	0.0	0.0	56.0	0.0	0.0	56.3	56.6	58.0
		AE-120D CC734 7386-L	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	54.3	0.0	0.0	56.1	0.0	0.0	0.0	55.1	0.0	0.0	55.9	0.0	0.0	56.0	54.7	56.1
EVRAZ Regina - 525476		AE-120D CC715 7110-V	MILL CONTROL	Rockwell A	OK	OD	55.4	0.0	0.0	55.5	0.0	0.0	57.0	0.0	0.0	0.0	55.4	0.0	0.0	55.0	0.0	0.0	55.2	55.5	57.0
		AE-120D CC715 7110-V	MILL CONTROL	Rockwell A	OK	ID	54.5	0.0	0.0	52.7	0.0	0.0	54.6	0.0	0.0	0.0	53.6	0.0	0.0	55.3	0.0	0.0	54.9	53.2	54.6
EVRAZ Regina - 525477		AE-120D CC727 7287-L	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	55.9	0.0	0.0	57.9	0.0	0.0	0.0	57.4	0.0	0.0	56.8	0.0	0.0	56.7	56.7	57.9
		AE-120D CC727 7287-L	MILL CONTROL	Rockwell A	OK	ID	55.6	0.0	0.0	53.0	0.0	0.0	55.7	0.0	0.0	0.0	54.2	0.0	0.0	56.2	0.0	0.0	55.9	53.6	55.7
EVRAZ Regina - 525478		AE-120D CC760 7776-N	MILL CONTROL	Rockwell A	OK	OD	54.9	0.0	0.0	54.4	0.0	0.0	56.4	0.0	0.0	0.0	56.0	0.0	0.0	55.1	0.0	0.0	55.0	55.2	56.4
		AE-120D CC760 7776-N	MILL CONTROL	Rockwell A	OK	ID	54.3	0.0	0.0	53.1	0.0	0.0	54.7	0.0	0.0	0.0	52.7	0.0	0.0	54.2	0.0	0.0	54.3	52.9	54.7
EVRAZ Regina - 525479		AE-120D CC741 7491-T	MILL CONTROL	Rockwell A	OK	OD	56.7	0.0	0.0	56.2	0.0	0.0	57.9	0.0	0.0	0.0	57.2	0.0	0.0	56.0	0.0	0.0	56.4	56.7	57.9
		AE-120D CC741 7491-T	MILL CONTROL	Rockwell A	OK	ID	56.2	0.0	0.0	54.6	0.0	0.0	56.3	0.0	0.0	0.0	54.7	0.0	0.0	56.3	0.0	0.0	56.3	54.7	56.3
EVRAZ Regina - 525480		AE-120D CC747 7581-V	MILL CONTROL	Rockwell A	OK	OD	49.5	0.0	0.0	52.6	0.0	0.0	55.9	0.0	0.0	0.0	54.3	0.0	0.0	54.1	0.0	0.0	51.8	53.5	55.9
		AE-120D CC747 7581-V	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	53.8	0.0	0.0	54.8	0.0	0.0	0.0	53.8	0.0	0.0	55.9	0.0	0.0	56.0	53.8	54.8
EVRAZ Regina - 525481		AE-120D CC721 7199-H	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	56.6	0.0	0.0	58.4	0.0	0.0	0.0	57.5	0.0	0.0	57.3	0.0	0.0	57.0	57.1	58.4
		AE-120D CC721 7199-H	MILL CONTROL	Rockwell A	OK	ID	56.6	0.0	0.0	55.2	0.0	0.0	56.7	0.0	0.0	0.0	55.6	0.0	0.0	56.5	0.0	0.0	56.6	55.4	56.7
EVRAZ Regina - 525749		AE-120D CC856 7868-H	MILL CONTROL	Rockwell A	OK	OD	56.8	0.0	0.0	56.6	0.0	0.0	57.3	0.0	0.0	0.0	56.1	0.0	0.0	56.7	0.0	0.0	56.8	56.4	57.3
		AE-120D CC856 7868-H	MILL CONTROL	Rockwell A	OK	ID	56.7	0.0	0.0	54.1	0.0	0.0	55.4	0.0	0.0	0.0	54.6	0.0	0.0	57.3	0.0	0.0	57.0	54.4	55.4
MS - Micro Structure FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched		Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLU1 - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel										23100 KPA for 30 secs Minimum Weld Seam Heat Treatment Temperature: 900 (C) We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler													

form crtr3006XL



 Camrose ERW	EVRAZ Camrose																			Friday, July 28, 2017, 13:03:27								
	CERTIFICATE OF TESTING																			Certificate ID: 175170-2								
	Macro Hardness																			Customer PO:								
	Customer: ALBERTA PRODUCTS PIPE LINE LTD.																			Mill Order No: WA 054608-02								
Diameter: 323.9 mm Wall Thickness: 9.500 mm Grade: GR.414-2																												
Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																												
Supplier - Heat	Product ID	Test Type	Scale	MS	Location	PM			HAZ			WMZ			HAZ			PM			AVERAGES							
																				PM	HAZ	WMZ						
EVRAZ Regina - 406708	AE-120D CC857 7891-N	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	56.1	0.0	0.0	57.9	0.0	0.0	0.0	57.9	0.0	0.0	57.1	0.0	0.0	56.9	57.0	57.9				
	AE-120D CC857 7891-N	MILL CONTROL	Rockwell A	OK	ID	56.5	0.0	0.0	54.1	0.0	0.0	55.6	0.0	0.0	0.0	55.1	0.0	0.0	56.8	0.0	0.0	56.7	54.6	55.6				
EVRAZ Regina - 525473	AE-120D CC707 7006-L	MILL CONTROL	Rockwell A	OK	OD	54.4	0.0	0.0	54.8	0.0	0.0	56.7	0.0	0.0	0.0	56.4	0.0	0.0	54.3	0.0	0.0	54.4	55.6	56.7				
	AE-120D CC707 7006-L	MILL CONTROL	Rockwell A	OK	ID	54.6	0.0	0.0	52.7	0.0	0.0	55.0	0.0	0.0	0.0	54.2	0.0	0.0	56.3	0.0	0.0	55.5	53.5	55.0				
EVRAZ Regina - 525474	AE-120D CC753 7671-J	MILL CONTROL	Rockwell A	OK	OD	56.2	0.0	0.0	55.3	0.0	0.0	57.8	0.0	0.0	0.0	57.3	0.0	0.0	56.4	0.0	0.0	56.3	56.3	57.8				
	AE-120D CC753 7671-J	MILL CONTROL	Rockwell A	OK	ID	56.4	0.0	0.0	54.1	0.0	0.0	55.7	0.0	0.0	0.0	54.4	0.0	0.0	56.3	0.0	0.0	56.4	54.3	55.7				
EVRAZ Regina - 525475	AE-120D CC734 7386-L	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	55.6	0.0	0.0	58.0	0.0	0.0	0.0	57.5	0.0	0.0	56.0	0.0	0.0	56.3	56.6	58.0				
	AE-120D CC734 7386-L	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	54.3	0.0	0.0	56.1	0.0	0.0	0.0	55.1	0.0	0.0	55.9	0.0	0.0	56.0	54.7	56.1				
EVRAZ Regina - 525476	AE-120D CC715 7110-V	MILL CONTROL	Rockwell A	OK	OD	55.4	0.0	0.0	55.5	0.0	0.0	57.0	0.0	0.0	0.0	55.4	0.0	0.0	55.0	0.0	0.0	55.2	55.5	57.0				
	AE-120D CC715 7110-V	MILL CONTROL	Rockwell A	OK	ID	54.5	0.0	0.0	52.7	0.0	0.0	54.6	0.0	0.0	0.0	53.6	0.0	0.0	55.3	0.0	0.0	54.9	53.2	54.6				
EVRAZ Regina - 525477	AE-120D CC727 7287-L	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	55.9	0.0	0.0	57.9	0.0	0.0	0.0	57.4	0.0	0.0	56.8	0.0	0.0	56.7	56.7	57.9				
	AE-120D CC727 7287-L	MILL CONTROL	Rockwell A	OK	ID	55.6	0.0	0.0	53.0	0.0	0.0	55.7	0.0	0.0	0.0	54.2	0.0	0.0	56.2	0.0	0.0	55.9	53.6	55.7				
EVRAZ Regina - 525478	AE-120D CC760 7776-N	MILL CONTROL	Rockwell A	OK	OD	54.9	0.0	0.0	54.4	0.0	0.0	56.4	0.0	0.0	0.0	56.0	0.0	0.0	55.1	0.0	0.0	55.0	55.2	56.4				
	AE-120D CC760 7776-N	MILL CONTROL	Rockwell A	OK	ID	54.3	0.0	0.0	53.1	0.0	0.0	54.7	0.0	0.0	0.0	52.7	0.0	0.0	54.2	0.0	0.0	54.3	52.9	54.7				
EVRAZ Regina - 525479	AE-120D CC741 7491-T	MILL CONTROL	Rockwell A	OK	OD	56.7	0.0	0.0	56.2	0.0	0.0	57.9	0.0	0.0	0.0	57.2	0.0	0.0	56.0	0.0	0.0	56.4	56.7	57.9				
	AE-120D CC741 7491-T	MILL CONTROL	Rockwell A	OK	ID	56.2	0.0	0.0	54.6	0.0	0.0	56.3	0.0	0.0	0.0	54.7	0.0	0.0	56.3	0.0	0.0	56.3	54.7	56.3				
EVRAZ Regina - 525480	AE-120D CC747 7581-V	MILL CONTROL	Rockwell A	OK	OD	49.5	0.0	0.0	52.6	0.0	0.0	55.9	0.0	0.0	0.0	54.3	0.0	0.0	54.1	0.0	0.0	51.8	53.5	55.9				
	AE-120D CC747 7581-V	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	53.8	0.0	0.0	54.8	0.0	0.0	0.0	53.8	0.0	0.0	55.9	0.0	0.0	56.0	53.8	54.8				
EVRAZ Regina - 525481	AE-120D CC721 7199-H	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	56.6	0.0	0.0	58.4	0.0	0.0	0.0	57.5	0.0	0.0	57.3	0.0	0.0	57.0	57.1	58.4				
	AE-120D CC721 7199-H	MILL CONTROL	Rockwell A	OK	ID	56.6	0.0	0.0	55.2	0.0	0.0	56.7	0.0	0.0	0.0	55.6	0.0	0.0	56.5	0.0	0.0	56.6	55.4	56.7				
EVRAZ Regina - 525749	AE-120D CC856 7868-H	MILL CONTROL	Rockwell A	OK	OD	56.8	0.0	0.0	56.6	0.0	0.0	57.3	0.0	0.0	0.0	56.1	0.0	0.0	56.7	0.0	0.0	56.8	56.4	57.3				
	AE-120D CC856 7868-H	MILL CONTROL	Rockwell A	OK	ID	56.7	0.0	0.0	54.1	0.0	0.0	55.4	0.0	0.0	0.0	54.6	0.0	0.0	57.3	0.0	0.0	57.0	54.4	55.4				
MS - Micro Structure FRT - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched	Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable F&V - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel											23100 KPA for 10 secs Minimum Weld Seam Heat Treatment Temperature: 900 (C)											We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler					

form crtr3006XL



 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Tensile & Chemistry																				Friday, July 28, 2017, 13:09:04				
																						Certificate ID: 175173-6				
		Customer: ALBERTA PRODUCTS PIPE LINE LTD.																				Customer PO: 44771				
		Diameter: 323.9 mm Wall Thickness: 12.700 mm Grade: GR.414-2 Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																		Mill Order No: WA 054608-03						
Supplier - Heat		Product ID		Test Type		Orientation				Width (mm)		YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T								
				Wgt (%)	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl		
EVRAZ Regina - 525498		AE-120E	9139-H	MILL CONTROL		PIPE TPA				37.910		495		573		39.9		0.86								
		AE-120E	9139-H	MILL CONTROL		PIPE TWA				38.021				598		0.0		0.00								
		AE-120E	B0002	Heat:	0.04	1.30	0.011	0.001	0.12	0.32	0.10	0.08	0.03	0.012	0.036	0.00	0.07	0.011	0.02	0.0002	0.19	0.0034	0.000	0.035		
		AE-120E	B0004	Product:	0.04	1.28	0.011	0.001	0.12	0.31	0.10	0.08	0.03	0.012	0.038	0.00	0.07	0.011	0.02	0.0001	0.19	0.0032	0.000	0.034		
EVRAZ Regina - 525499		AE-120E	9080-J	MILL CONTROL		PIPE TPA				37.970		522		588		33.5		0.89								
		AE-120E	9080-J	MILL CONTROL		PIPE TWA				37.889				615		0.0		0.00								
		AE-120E	B0009	Heat:	0.04	1.31	0.009	0.003	0.09	0.28	0.09	0.08	0.03	0.010	0.051	0.00	0.07	0.009	0.02	0.0002	0.19	0.0024	0.000	0.050		
		AE-120E	B0010	Product:	0.03	1.29	0.009	0.003	0.09	0.27	0.09	0.09	0.03	0.010	0.052	0.00	0.07	0.009	0.02	0.0001	0.18	0.0020	0.000	0.049		
EVRAZ Regina - 525500		AE-120E	9697-N	MILL CONTROL		PIPE TPA				37.749		511		584		38.8		0.87								
		AE-120E	9697-N	MILL CONTROL		PIPE TWA				37.770				609		0.0		0.00								
		AE-120E	B0014	Heat:	0.04	1.30	0.010	0.003	0.11	0.28	0.09	0.11	0.04	0.010	0.050	0.00	0.07	0.010	0.02	0.0002	0.19	0.0028	0.000	0.048		
		AE-120E	B0015	Product:	0.03	1.28	0.010	0.002	0.12	0.28	0.09	0.11	0.04	0.010	0.052	0.00	0.07	0.008	0.02	0.0001	0.18	0.0026	0.000	0.049		
EVRAZ Regina - 525501		AE-120E	9010-N	MILL CONTROL		PIPE TPA				37.970		537		626		36.4		0.86								
		AE-120E	9010-N	MILL CONTROL		PIPE TWA				37.831				619		0.0		0.00								
		AE-120E	B0020	Heat:	0.03	1.29	0.010	0.002	0.12	0.30	0.09	0.10	0.04	0.010	0.041	0.00	0.07	0.008	0.02	0.0002	0.18	0.0031	0.000	0.040		
		AE-120E	B0022	Product:	0.03	1.29	0.010	0.002	0.12	0.29	0.09	0.11	0.05	0.010	0.044	0.00	0.07	0.008	0.02	0.0001	0.18	0.0028	0.000	0.041		
EVRAZ Regina - 525502		AE-120E	9230-M	MILL CONTROL		PIPE TPA				37.770		492		570		37.4		0.86								
		AE-120E	9230-M	MILL CONTROL		PIPE TWA				37.800				616		0.0		0.00								
		AE-120E	B0028	Heat:	0.04	1.29	0.011	0.002	0.11	0.29	0.09	0.12	0.04	0.010	0.032	0.00	0.07	0.009	0.02	0.0002	0.19	0.0033	0.000	0.032		
		AE-120E	B0029	Product:	0.04	1.27	0.012	0.002	0.11	0.27	0.10	0.13	0.04	0.009	0.031	0.00	0.07	0.008	0.02	0.0001	0.19	0.0027	0.000	0.028		
EVRAZ Regina - 525503		AE-120E	9381-V	MILL CONTROL		PIPE TPA				37.831		522		606		37.6		0.86								
		AE-120E	9381-V	MILL CONTROL		PIPE TWA				37.991				622		0.0		0.00								
		AE-120E	B0034	Heat:	0.04	1.31	0.011	0.003	0.10	0.28	0.09	0.10	0.04	0.011	0.037	0.00	0.07	0.009	0.02	0.0002	0.20	0.0038	0.000	0.035		
		AE-120E	B0035	Product:	0.04	1.30	0.011	0.003	0.11	0.27	0.09	0.10	0.04	0.012	0.038	0.00	0.07	0.008	0.02	0.0001	0.19	0.0031	0.000	0.033		
EVRAZ Regina - 525504		AE-120E	9440-N	MILL CONTROL		PIPE TPA				37.810		512		608		37.3		0.84								
		AE-120E	9440-N	MILL CONTROL		PIPE TWA				37.780				623		0.0		0.00								
		AE-120E	B0040	Heat:	0.04	1.30	0.010	0.002	0.13	0.27	0.10	0.11	0.04	0.010	0.028	0.00	0.07	0.009	0.02	0.0002	0.19	0.0035	0.000	0.026		
		AE-120E	B0041	Product:	0.04	1.27	0.009	0.002	0.14	0.26	0.10	0.11	0.04	0.009	0.028	0.00	0.07	0.008	0.02	0.0002	0.19	0.0030	0.000	0.024		
EVRAZ Regina - 525505		AE-120E	10059-N	APPLY / TEST		PIPE TPA				38.100		481		576		37.4		0.84								
		AE-120E	10059-N	APPLY / TEST		PIPE TPA				37.991		497		567		41.1		0.88								
		AE-120E	9215-F	MILL CONTROL		PIPE TPA				37.770		492		615		36.3		0.80								
		AE-120E	9215-F	MILL CONTROL		PIPE TWA				37.821				662		0.0		0.00								
EVRAZ Regina - 525506		AE-120E	A0004	Heat:	0.04	1.29	0.012	0.003	0.10	0.34	0.12	0.15	0.04	0.010	0.041	0.00	0.07	0.008	0.02	0.0002	0.20	0.0022	0.001	0.039		
		AE-120E	A0005	Product:	0.04	1.27	0.012	0.002	0.10	0.32	0.12	0.15	0.04	0.010	0.042	0.00	0.07	0.008	0.02	0.0001	0.20	0.0019	0.000	0.039		
		AE-120E	9840-H	MILL CONTROL		PIPE TPA				37.910		526		598		37.0		0.88								
		AE-120E	9840-H	MILL CONTROL		PIPE TWA				37.879				646		0.0		0.00								
EVRAZ Regina - 525511		AE-120E	A0010	Heat:	0.04	1.29	0.012	0.002	0.10	0.31	0.28	0.16	0.05	0.010	0.036	0.00	0.07	0.010	0.02	0.0002	0.21	0.0029	0.001	0.035		
		AE-120E	A0010	Product:	0.04	1.26	0.012	0.002	0.10	0.30	0.29	0.16	0.05	0.010	0.036	0.00	0.07	0.009	0.02	0.0001	0.20	0.0025	0.000	0.033		
		AE-120E	A0011	Product:	0.04	1.27	0.013	0.002	0.10	0.31	0.29	0.17	0.05	0.010	0.036	0.00	0.07	0.009	0.02	0.0001	0.21	0.0023	0.000	0.033		
		AE-120E	9577-J	MILL CONTROL		PIPE TPA				37.800		525		610		38.5		0.86								
EVRAZ Regina - 525512		AE-120E	9577-J	MILL CONTROL		PIPE TWA				37.841				640		0.0		0.00								
		AE-120E	C0002	Heat:	0.04	1.28	0.014	0.001	0.16	0.30	0.17	0.14	0.04	0.012	0.047	0.00	0.08	0.009	0.02	0.0003	0.20	0.0033	0.001	0.045		
		AE-120E	C0002	Product:	0.04	1.27	0.015	0.001	0.16	0.30	0.18	0.14	0.04	0.012	0.047	0.00	0.08	0.010	0.02	0.0002	0.20	0.0028	0.000	0.042		
		AE-120E	C0005	Product:	0.04	1.26	0.014	0.001	0.16	0.30	0.17	0.14	0.04	0.011	0.048	0.00	0.07	0.009	0.02	0.0002	0.20	0.0029	0.000	0.044		
EVRAZ Regina - 525513		AE-120E	9506-V	MILL CONTROL		PIPE TPA				37.869		499		598		40.0		0.84								
		AE-120E	9506-V	MILL CONTROL		PIPE TWA				37.930				629		0.0		0.00								
		AE-120E	C0010	Heat:	0.04	1.30	0.009	0.001	0.11	0.33	0.19	0.09	0.04	0.012	0.037	0.00	0.07	0.010	0.02	0.0002	0.20	0.0031	0.001	0.036		
		AE-120E	C0011	Product:	0.04	1.30	0.009	0.001	0.12	0.32	0.19	0.09	0.04	0.012	0.038	0.00	0.07	0.009	0.02	0.0001	0.19	0.0028	0.000	0.033		
EVRAZ Regina - 525513		AE-120E	9767-J	MILL CONTROL		PIPE TPA				37.981		497		596		40.8		0.83								
		AE-120E	9767-J	MILL CONTROL		PIPE TWA				37.960				630		0.0		0.00								
		AE-120E	C0016	Heat:	0.05	1.28	0.009	0.002	0.15	0.31	0.11	0.09	0.04	0.012	0.050	0.00	0.07	0.010	0.02	0.0002	0.20	0.0027	0.001	0.046		
		AE-120E	C0017	Product:	0.05	1.28	0.009	0.002	0.15	0.30	0.11	0.09	0.04	0.012	0.053	0.00	0.07	0.009	0.02	0.0001	0.20	0.0024	0.000	0.048		

 Camrose ERW		<div>EVRAZ Camrose</div> <div>CERTIFICATE OF TESTING</div> <div>Tensile & Chemistry</div>															Friday, July 28, 2017, 13:09:04																			
																	Certificate ID: 175173-6																			
																	Customer PO: 44771																			
Customer: ALBERTA PRODUCTS PIPE LINE LTD.										Diameter: 323.9 mm					Wall Thickness: 12.700 mm					Grade: GR.414-2					Mill Order No: WA 054608-03											
										Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																										
Supplier - Heat			Product ID			Test Type			Orientation				Width (mm)				YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T													
						Wgt (%)			C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl								
EVRAZ Regina - 525514			AE-120E	9178-T	MILL CONTROL			PIPE TPA			37.800		481		567		40.7		0.85																	
			AE-120E	9178-T							MILL CONTROL			PIPE TWA			37.800		603						0.0		0.00									
			Heat:			0.04	1.28	0.011	0.001	0.11							0.29	0.10	0.11	0.04	0.011	0.034	0.00	0.07	0.010	0.02	0.0002	0.19	0.0030	0.001	0.033					
			AE-120E			C0023	Product:			0.04	1.26	0.010	0.001	0.11	0.28	0.10	0.11	0.04	0.010	0.035	0.00	0.07	0.009	0.02	0.0001	0.19	0.0028	0.000	0.029							
EVRAZ Regina - 525515			AE-120E	C0024	Product:			0.04	1.27	0.011	0.001	0.11	0.29	0.10	0.11	0.04	0.011	0.033	0.00	0.07	0.010	0.02	0.0001	0.19	0.0023	0.000	0.028									
			AE-120E	9640-T	MILL CONTROL			PIPE TPA			37.821		504		587		39.8		0.86																	
			AE-120E	9640-T							MILL CONTROL			PIPE TWA			37.851		638						0.0		0.00									
			Heat:			0.04	1.29	0.012	0.002	0.11							0.29	0.10	0.09	0.03	0.010	0.035	0.00	0.07	0.009	0.02	0.0002	0.19	0.0027	0.000	0.032					
EVRAZ Regina - 525663			AE-120E	C0027	Product:			0.04	1.28	0.012	0.002	0.12	0.28	0.10	0.10	0.03	0.010	0.036	0.00	0.07	0.009	0.02	0.0001	0.19	0.0028	0.000	0.030									
			AE-120E	C0029	Product:			0.04	1.30	0.012	0.002	0.12	0.29	0.10	0.10	0.03	0.011	0.036	0.00	0.07	0.009	0.02	0.0001	0.19	0.0021	0.000	0.031									
			AE-120E	9906-L	MILL CONTROL			PIPE TPA			37.869		496		575		43.0		0.86																	
			AE-120E	9906-L							MILL CONTROL			PIPE TWA			37.960		605						0.0		0.00									
Heat:			0.04	1.30	0.009	0.002	0.12	0.24	0.10	0.09							0.05	0.008	0.039	0.00	0.07	0.011	0.02	0.0002	0.19	0.0041	0.000	0.038								
EVRAZ Regina - 525664			AE-120E	A0005	Product:			0.04	1.30	0.009	0.002	0.12	0.24	0.10	0.09	0.05	0.008	0.041	0.00	0.07	0.010	0.02	0.0001	0.19	0.0029	0.000	0.038									
			AE-120E	A0006	Product:			0.04	1.28	0.008	0.002	0.12	0.24	0.10	0.09	0.04	0.008	0.039	0.00	0.07	0.010	0.02	0.0001	0.19	0.0022	0.000	0.036									
			AE-120E	9992-S	MILL CONTROL			PIPE TPA			37.780		490		572		41.3		0.86																	
			AE-120E	9992-S							MILL CONTROL			PIPE TWA			37.821		584						0.0		0.00									
Heat:			0.04	1.26	0.008	0.001	0.12	0.25	0.10	0.08							0.04	0.009	0.038	0.00	0.07	0.009	0.02	0.0002	0.19	0.0021	0.001	0.038								
AE-120E			A0011	Product:			0.05	1.26	0.008	0.001	0.12	0.24	0.10	0.08	0.04	0.009	0.040	0.00	0.07	0.009	0.02	0.0001	0.19	0.0019	0.000	0.037										
				Product:			0.04	1.26	0.007	0.001	0.12	0.24	0.10	0.08	0.04	0.008	0.038	0.00	0.07	0.010	0.02	0.0001	0.19	0.0018	0.000	0.035										
TPA - Transverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Transverse Weld Axis PST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched				Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel											27600 KPA for 10 secs Minimum Weld Seam Heat Treatment Temperature: 900 (C)											We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler										



form crtr3001XL

 Camrose ERW		EVRAZ Camrose																		Friday, July 28, 2017, 13:27:18					
		CERTIFICATE OF TESTING																		Certificate ID: 175177-3					
		Tensile & Chemistry																		Customer PO:					
Customer: ALBERTA PRODUCTS PIPE LINE LTD.										Diameter: 323.9 mm Wall Thickness: 12.700 mm Grade: GR.414-2										Mill Order No: WA 054608-04					
										Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements															
Supplier - Heat		Product ID		Test Type		Orientation			Width (mm)		YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T		CEQ		Ca	Ce	SoAl		
				Wgt (%)	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B					
EVRAZ Regina - 525499	AE-120E	9080-J	MILL CONTROL		PIPE TPA			37.970		522		588		33.5		0.89									
	AE-120E	9080-J	MILL CONTROL		PIPE TWA			37.889				615		0.0		0.00									
			Heat:	0.04	1.31	0.009	0.003	0.09	0.28	0.09	0.08	0.03	0.010	0.051	0.00	0.07	0.009	0.02	0.0002	0.19	0.0024	0.000	0.050		
	AE-120E	B0009	Product:		0.03	1.29	0.009	0.003	0.09	0.27	0.09	0.09	0.03	0.010	0.052	0.00	0.07	0.009	0.02	0.0001	0.18	0.0020	0.000	0.049	
	AE-120E	B0010	Product:		0.03	1.30	0.009	0.003	0.09	0.26	0.09	0.08	0.03	0.010	0.054	0.00	0.07	0.008	0.02	0.0001	0.18	0.0019	0.000	0.051	
EVRAZ Regina - 525514	AE-120E	9178-T	MILL CONTROL		PIPE TPA			37.800		481		567		40.7		0.85									
	AE-120E	9178-T	MILL CONTROL		PIPE TWA			37.800				603		0.0		0.00									
			Heat:	0.04	1.28	0.011	0.001	0.11	0.29	0.10	0.11	0.04	0.011	0.034	0.00	0.07	0.010	0.02	0.0002	0.19	0.0030	0.001	0.033		
	AE-120E	C0023	Product:		0.04	1.26	0.010	0.001	0.11	0.28	0.10	0.11	0.04	0.010	0.035	0.00	0.07	0.009	0.02	0.0001	0.19	0.0028	0.000	0.029	
	AE-120E	C0024	Product:		0.04	1.27	0.011	0.001	0.11	0.29	0.10	0.11	0.04	0.011	0.033	0.00	0.07	0.010	0.02	0.0001	0.19	0.0023	0.000	0.028	
EVRAZ Regina - 525515	AE-120E	9640-T	MILL CONTROL		PIPE TPA			37.821		504		587		39.8		0.86									
	AE-120E	9640-T	MILL CONTROL		PIPE TWA			37.851				638		0.0		0.00									
			Heat:	0.04	1.29	0.012	0.002	0.11	0.29	0.10	0.09	0.03	0.010	0.035	0.00	0.07	0.009	0.02	0.0002	0.19	0.0027	0.000	0.032		
	AE-120E	C0027	Product:		0.04	1.28	0.012	0.002	0.12	0.28	0.10	0.10	0.03	0.010	0.036	0.00	0.07	0.009	0.02	0.0001	0.19	0.0028	0.000	0.030	
	AE-120E	C0029	Product:		0.04	1.30	0.012	0.002	0.12	0.29	0.10	0.10	0.03	0.011	0.036	0.00	0.07	0.009	0.02	0.0001	0.19	0.0021	0.000	0.031	
TPA - Transverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched			Flattening Test Acceptable 27600 KPA for 10 secs Ultrasonic Weld Line Inspection Acceptable Minimum Weld Seam Heat Treatment Temperature: 900 (C) High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler												



form crtr3001XL

<div></div> <div>Camrose ERW</div>														EVRAZ Camrose														Friday, July 28, 2017, 13:09:04					
														CERTIFICATE OF TESTING														Certificate ID: 175173-5					
														Macro Hardness														Customer PO: 44771					
Customer: ALBERTA PRODUCTS PIPE LINE LTD.														Diameter: 323.9 mm Wall Thickness: 12.700 mm Grade: GR.414-2														Mill Order No: WA 054608-03					
														Specification: CSA Z245.1-14 GRADE 414 CAT II MSC, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																			
Supplier - Heat				Product ID		Test Type		Scale		MS	Location		PM		HAZ			WMZ			HAZ			PM			AVERAGES						
																											PM	HAZ	WMZ				
EVRAZ Regina - 525498				AE-120E	CC777 9139-H	MILL CONTROL	Rockwell A	OK	OD	54.4	0.0	0.0	56.6	0.0	0.0	57.3	0.0	0.0	0.0	57.0	0.0	0.0	56.6	0.0	0.0	55.5	56.8	57.3					
				AE-120E	CC777 9139-H	MILL CONTROL	Rockwell A	OK	ID	55.6	0.0	0.0	53.7	0.0	0.0	55.2	0.0	0.0	53.9	0.0	0.0	55.7	0.0	0.0	55.7	0.0	0.0	55.7	53.8	55.2			
				AE-120E	CC854 10047-J	SHIFT CONTROL	Rockwell A	OK	OD	54.5	0.0	0.0	54.8	0.0	0.0	56.1	0.0	0.0	55.8	0.0	0.0	55.7	0.0	0.0	55.1	55.3	56.1						
				AE-120E	CC854 10047-J	SHIFT CONTROL	Rockwell A	OK	ID	55.1	0.0	0.0	52.4	0.0	0.0	53.9	0.0	0.0	52.7	0.0	0.0	55.0	0.0	0.0	55.1	52.6	53.9						
EVRAZ Regina - 525499				AE-120E	CC772 9080-J	MILL CONTROL	Rockwell A	OK	OD	57.1	0.0	0.0	57.1	0.0	0.0	57.8	0.0	0.0	56.8	0.0	0.0	56.2	0.0	0.0	56.7	57.0	57.8						
				AE-120E	CC772 9080-J	MILL CONTROL	Rockwell A	OK	ID	55.7	0.0	0.0	54.1	0.0	0.0	54.6	0.0	0.0	53.5	0.0	0.0	56.3	0.0	0.0	56.0	53.8	54.6						
EVRAZ Regina - 525500				AE-120E	CC824 9697-N	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	57.4	0.0	0.0	57.7	0.0	0.0	57.0	0.0	0.0	56.0	0.0	0.0	56.3	57.2	57.7						
				AE-120E	CC824 9697-N	MILL CONTROL	Rockwell A	OK	ID	56.5	0.0	0.0	52.6	0.0	0.0	55.6	0.0	0.0	54.7	0.0	0.0	55.4	0.0	0.0	56.0	53.7	55.6						
EVRAZ Regina - 525501				AE-120E	CC766 9010-N	MILL CONTROL	Rockwell A	OK	OD	52.1	0.0	0.0	54.4	0.0	0.0	55.5	0.0	0.0	56.2	0.0	0.0	54.0	0.0	0.0	53.1	55.3	55.5						
				AE-120E	CC766 9010-N	MILL CONTROL	Rockwell A	OK	ID	56.3	0.0	0.0	53.7	0.0	0.0	55.4	0.0	0.0	53.7	0.0	0.0	56.8	0.0	0.0	56.6	53.7	55.4						
EVRAZ Regina - 525502				AE-120E	CC784 9226-N	MILL CONTROL	Rockwell A	OK	OD	51.2	0.0	0.0	54.2	0.0	0.0	55.1	0.0	0.0	55.0	0.0	0.0	56.0	0.0	0.0	53.6	54.6	55.1						
				AE-120E	CC784 9226-N	MILL CONTROL	Rockwell A	OK	ID	50.3	0.0	0.0	51.0	0.0	0.0	51.7	0.0	0.0	51.7	0.0	0.0	52.6	0.0	0.0	51.5	51.4	51.7						
				AE-120E	CC784 9230-M	MILL CONTROL	Rockwell A	OK	OD	56.0	0.0	0.0	57.3	0.0	0.0	58.4	0.0	0.0	57.8	0.0	0.0	57.0	0.0	0.0	56.5	57.6	58.4						
				AE-120E	CC784 9230-M	MILL CONTROL	Rockwell A	OK	ID	56.0	0.0	0.0	53.3	0.0	0.0	55.4	0.0	0.0	53.8	0.0	0.0	56.1	0.0	0.0	56.1	53.6	55.4						
EVRAZ Regina - 525503				AE-120E	CC797 9381-V	MILL CONTROL	Rockwell A	OK	OD	57.2	0.0	0.0	58.5	0.0	0.0	58.9	0.0	0.0	58.4	0.0	0.0	57.0	0.0	0.0	57.1	58.5	58.9						
				AE-120E	CC797 9381-V	MILL CONTROL	Rockwell A	OK	ID	55.8	0.0	0.0	52.5	0.0	0.0	55.3	0.0	0.0	54.3	0.0	0.0	55.0	0.0	0.0	55.4	53.4	55.3						
EVRAZ Regina - 525504				AE-120E	CC802 9440-N	MILL CONTROL	Rockwell A	OK	OD	57.4	0.0	0.0	58.1	0.0	0.0	58.2	0.0	0.0	58.1	0.0	0.0	56.5	0.0	0.0	57.0	58.1	58.2						
				AE-120E	CC802 9440-N	MILL CONTROL	Rockwell A	OK	ID	54.9	0.0	0.0	53.9	0.0	0.0	55.7	0.0	0.0	54.1	0.0	0.0	57.1	0.0	0.0	56.0	54.0	55.7						
EVRAZ Regina - 525505				AE-120E	CC783 9215-F	MILL CONTROL	Rockwell A	OK	OD	56.7	0.0	0.0	57.6	0.0	0.0	58.3	0.0	0.0	58.2	0.0	0.0	57.7	0.0	0.0	57.2	57.9	58.3						
				AE-120E	CC783 9215-F	MILL CONTROL	Rockwell A	OK	ID	56.2	0.0	0.0	53.6	0.0	0.0	55.5	0.0	0.0	54.1	0.0	0.0	53.2	0.0	0.0	54.7	53.9	55.5						
EVRAZ Regina - 525506				AE-120E	CC836 9840-H	MILL CONTROL	Rockwell A	OK	OD	57.2	0.0	0.0	57.8	0.0	0.0	58.4	0.0	0.0	58.1	0.0	0.0	57.3	0.0	0.0	57.3	58.0	58.4						
				AE-120E	CC836 9840-H	MILL CONTROL	Rockwell A	OK	ID	56.7	0.0	0.0	54.2	0.0	0.0	56.3	0.0	0.0	55.1	0.0	0.0	57.0	0.0	0.0	56.9	54.7	56.3						
EVRAZ Regina - 525511				AE-120E	CC814 9577-J	MILL CONTROL	Rockwell A	OK	OD	56.6	0.0	0.0	57.8	0.0	0.0	58.4	0.0	0.0	57.8	0.0	0.0	56.8	0.0	0.0	56.7	57.8	58.4						
				AE-120E	CC814 9577-J	MILL CONTROL	Rockwell A	OK	ID	55.8	0.0	0.0	53.4	0.0	0.0	54.8	0.0	0.0	53.6	0.0	0.0	56.2	0.0	0.0	56.0	53.5	54.8						
EVRAZ Regina - 525512				AE-120E	CC808 9506-V	MILL CONTROL	Rockwell A	OK	OD	57.1	0.0	0.0	58.2	0.0	0.0	58.8	0.0	0.0	57.6	0.0	0.0	56.5	0.0	0.0	56.8	57.9	58.8						
				AE-120E	CC808 9506-V	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	54.5	0.0	0.0	55.8	0.0	0.0	53.8	0.0	0.0	56.2	0.0	0.0	56.2	54.2	55.8						
EVRAZ Regina - 525513				AE-120E	CC830 9767-J	MILL CONTROL	Rockwell A	OK	OD	56.1	0.0	0.0	58.0	0.0	0.0	57.8	0.0	0.0	55.7	0.0	0.0	56.3	0.0	0.0	56.2	56.9	57.8						
				AE-120E	CC830 9767-J	MILL CONTROL	Rockwell A	OK	ID	55.9	0.0	0.0	53.8	0.0	0.0	55.9	0.0	0.0	54.1	0.0	0.0	56.1	0.0	0.0	56.0	54.0	55.9						
EVRAZ Regina - 525514				AE-120E	CC780 9178-T	MILL CONTROL	Rockwell A	OK	OD	55.5	0.0	0.0	57.1	0.0	0.0	57.6	0.0	0.0	56.1	0.0	0.0	54.8	0.0	0.0	55.2	56.6	57.6						
				AE-120E	CC780 9178-T	MILL CONTROL	Rockwell A	OK	ID	55.3	0.0	0.0	53.2	0.0	0.0	54.6	0.0	0.0	52.7	0.0	0.0	54.6	0.0	0.0	55.0	53.0	54.6						
EVRAZ Regina - 525515				AE-120E	CC819 9640-T	MILL CONTROL	Rockwell A	OK	OD	55.2	0.0	0.0	57.7	0.0	0.0	58.4	0.0	0.0	57.7	0.0	0.0	56.4	0.0	0.0	55.8	57.7	58.4						
				AE-120E	CC819 9640-T	MILL CONTROL	Rockwell A	OK	ID	56.1	0.0	0.0	54.2	0.0	0.0	55.0	0.0	0.0	53.5	0.0	0.0	55.7	0.0	0.0	55.9	53.9	55.0						
EVRAZ Regina - 525663				AE-120E	CC842 9906-L	MILL CONTROL	Rockwell A	OK	OD	55.0	0.0	0.0	58.3	0.0	0.0	58.5	0.0	0.0	58.3	0.0	0.0	56.4	0.0	0.0	55.7	58.3	58.5						
				AE-120E	CC842 9906-L	MILL CONTROL	Rockwell A	OK	ID	53.3	0.0	0.0	54.4	0.0	0.0	55.6	0.0	0.0	53.5	0.0	0.0	55.5	0.0	0.0	54.4	54.0	55.6						
EVRAZ Regina - 525664				AE-120E	CC849 9992-S	MILL CONTROL	Rockwell A	OK	OD	55.4	0.0	0.0	55.5	0.0	0.0	56.5	0.0	0.0	56.5	0.0	0.0	55.8	0.0	0.0	55.6	56.0	56.5						
				AE-120E	CC849 9992-S	MILL CONTROL	Rockwell A	OK	ID	55.1	0.0	0.0	51.3	0.0	0.0	52.4	0.0	0.0	51.5	0.0	0.0	55.2	0.0	0.0	55.2	51.4	52.4						
<div>MS - Micro Structure</div> <div>FBN - Full Body Normalized</div> <div>Q&T - Quenched and Tempered</div> <div>SR - Stress Relieve</div> <div>AQ - As Quenched</div>				<div>Flattening Test Acceptable</div> <div>Ultrasonic Weld Line Inspection Acceptable</div> <div>High Frequency Electric Welded</div> <div>Deoxidization Practice: Aluminum Fully Killed</div> <div>UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches</div> <div>Root Guided Bend Test Acceptable</div> <div>FLVI - Full length Visual</div> <div>Melted & Manufactured in Canada</div> <div>Yield Strength: 0.5% EUL</div> <div>Steelmaking and Rolling at EVRAZ Regina Steel</div>										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.																			
														<div></div> <div>Jamie Mohler</div>																			
				27600 KPA for 10 secs																													
				Minimum Weld Seam Heat Treatment Temperature: 900 (C)																													

form crtr3006XL

 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Charpy												Friday, July 28, 2017, 13:27:18																			
														Certificate ID: 175177-1																			
														Customer PO:																			
Customer: ALBERTA PRODUCTS PIPE LINE LTD.						Diameter: 323.9 mm Wall Thickness: 12.700 mm Grade: GR.414-2						Mill Order No: WA 054608-04																					
						Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																											
Supplier - Heat		Product ID		Test Type		Orientation		Temp C		Energy (Joules)				Percent Shear				Test Position		Size		Flat											
										#1		#2		#3		Avg		#1		#2		#3		Avg									
EVRAZ Regina - 525499		AE-120E CC772 9080-J		MILL CONTROL		PIPE TPA		-45		133		250		200		194		70		100		100		90		90		2/3					
		AE-120E CC772 9080-J		MILL CONTROL		PIPE TWA		-45		210		236		235		227		100		100		100		100		WMZ		2/3					
EVRAZ Regina - 525514		AE-120E CC780 9178-T		MILL CONTROL		PIPE TPA		-45		155		190		160		168		90		100		100		97		90		2/3					
		AE-120E CC780 9178-T		MILL CONTROL		PIPE TWA		-45		192		256		220		223		100		100		100		100		WMZ		2/3					
EVRAZ Regina - 525515		AE-120E CC819 9640-T		MILL CONTROL		PIPE TPA		-45		142		174		180		165		80		100		100		93		90		2/3					
		AE-120E CC819 9640-T		MILL CONTROL		PIPE TWA		-45		202		186		176		188		100		100		100		100		WMZ		2/3					
TPA - Transverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched FS - Full Size		FSE Acceptance Criteria: Body: 54 WMZ: 27 HAZ: 0 Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLWT - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler																					

form crtr3004XL

 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Macro Hardness																		Friday, July 28, 2017, 13:27:18							
																				Certificate ID: 175177-2							
																				Customer PO:							
Customer: ALBERTA PRODUCTS PIPE LINE LTD.										Diameter: 323.9 mm Wall Thickness: 12.700 mm Grade: GR.414-2										Mill Order No: WA 054608-04							
										Specification: CSA Z245.1-14 GRADE 414 CAT II M45C, APPL Spec A00-10-STD-0002 Rev. 2, TSR 152197Rev. 2 and related agreements																	
Supplier - Heat		Product ID		Test Type		Scale		MS		Location		PM		HAZ		WMZ				HAZ		PM		AVERAGES			
																								PM HAZ WMZ			
EVRAZ Regina - 525499		AE-120E C772 9080-J		MILL CONTROL		Rockwell A		OK		OD		57.1 0.0 0.0		57.1 0.0 0.0		57.8 0.0 0.0 0.0				56.8 0.0 0.0		56.2 0.0 0.0		56.7 57.0 57.8			
		AE-120E C772 9080-J		MILL CONTROL		Rockwell A		OK		ID		55.7 0.0 0.0		54.1 0.0 0.0		54.6 0.0 0.0 0.0				53.5 0.0 0.0		56.3 0.0 0.0		56.0 53.8 54.6			
EVRAZ Regina - 525514		AE-120E C780 9178-T		MILL CONTROL		Rockwell A		OK		OD		55.5 0.0 0.0		57.1 0.0 0.0		57.6 0.0 0.0 0.0				56.1 0.0 0.0		54.8 0.0 0.0		55.2 56.6 57.6			
		AE-120E C780 9178-T		MILL CONTROL		Rockwell A		OK		ID		55.3 0.0 0.0		53.2 0.0 0.0		54.6 0.0 0.0 0.0				52.7 0.0 0.0		54.6 0.0 0.0		55.0 53.0 54.6			
EVRAZ Regina - 525515		AE-120E C819 9640-T		MILL CONTROL		Rockwell A		OK		OD		55.2 0.0 0.0		57.7 0.0 0.0		58.4 0.0 0.0 0.0				57.7 0.0 0.0		56.4 0.0 0.0		55.8 57.7 58.4			
		AE-120E C819 9640-T		MILL CONTROL		Rockwell A		OK		ID		56.1 0.0 0.0		54.2 0.0 0.0		55.0 0.0 0.0 0.0				53.5 0.0 0.0		55.7 0.0 0.0		55.9 53.9 55.0			
MS - Micro Structure FN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched		Flattening Test Acceptable Ultrasonic Weld Line Inspection Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Root Guided Bend Test Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL Steelmaking and Rolling at EVRAZ Regina Steel										27600 KPA for 10 secs Minimum Weld Seam Heat Treatment Temperature: 900 (C)										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.  Jamie Mohler					

form crtr3006XL