



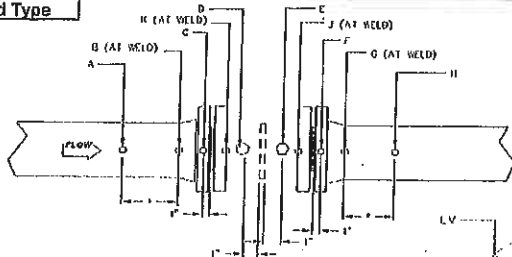
MEASUREMENT SYSTEMS

Meter Tube Calibration Record

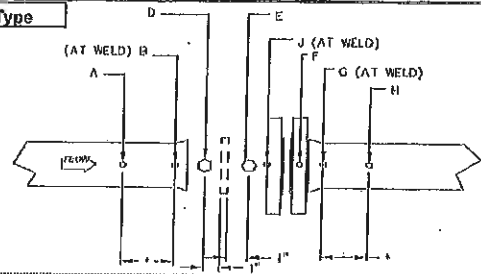
General Specifications

Customer:	RJV Gas Field Svcs	Date:	Dec. 14, 2012
Location:	Husky Energy	P.O. Number:	125991
Serial No.	11264364509	Work Order No.	112643645
Assembly Part No.	9A-MR_52_0091C	Part No.	40552-33221
Orifice Fitting:	2" 600# Sch 80 Dual Chamber Meter Run	Meter Tube Type No.	2
Str. Vane / Flow Cond.:		Yes	X No

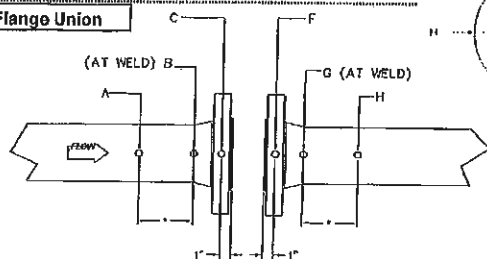
Type 1 Flanged Type



Type 2 Flangeweld Type



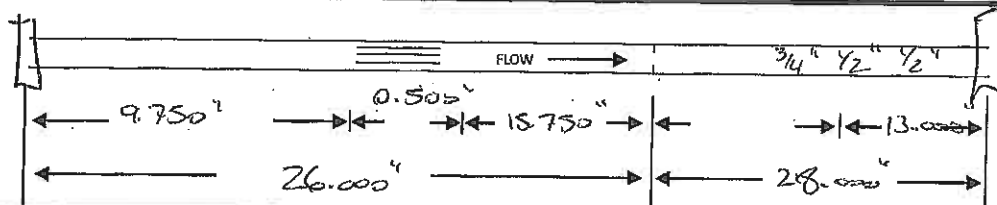
Type 3 Orifice Flange Union



Type 4 weldneck Type Valve or Door
Check Location Point A-B-D on Upstream Tube,
Point E-G-H on Downstream Tube

*Cross section 'A' and 'H' shall be one pipe diameter
except if such Cross Section falls within the lifting or weld
it shall be made 1" inside the pipe

Location	Upstream Meter Tube					Downstream Meter Tube				
	A	B	C	D	K	E	F	G	H	J
V	1.944	1.936		1.939		1.939	1.944	1.943	1.933	1.948
LV	1.942	1.935		1.941		1.941	1.942	1.935	1.937	1.942
RV	1.944	1.938		1.937		1.941	1.944	1.945	1.933	1.943
H	1.945	1.936		1.939		1.940	1.945	1.941	1.934	1.945
Average	1.944	1.936		1.939		1.940	1.944	1.944	1.934	1.945
Upstream Mean Average to Stamp on I.D. Plate				1.939		Downstream Mean Average to Stamp on I.D. Plate				1.940



AGA/API Figure

3 (2000)

0.70

Meter Tap Location

Upstream

N/A

Downstream

N/A

Remarks:

68*

Inspector:

Chris Robertson



www.c-a-m.com
Tel.: 780.468.2941
Edmonton, AB
NQS-F-01 Rev.4 10/21/11



the pressure equipment safety authority

Certificate of Authorization Permit

Quality Management System

Expiry Date: **December 9, 2013**

Reg. No.: **AQP-5046**

This is to certify that:

**CAMERON
MEASUREMENT SYSTEMS DIVISION
7944 - 10 STREET N.E.
CALGARY, ALBERTA**

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to:
Manufacture Category 'F' Fittings in accordance with CSA B51
at the above SHOP address.



Dated at Edmonton, this 7th day of December, 2010

Chief Inspector and Administrator

Certificate No.: 7735



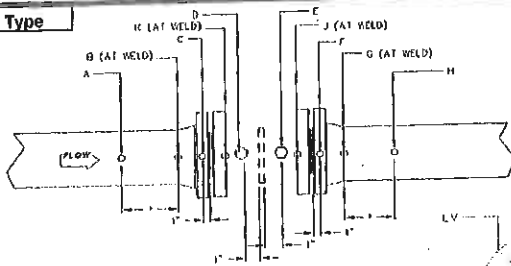
MEASUREMENT SYSTEMS

Meter Tube Calibration Record

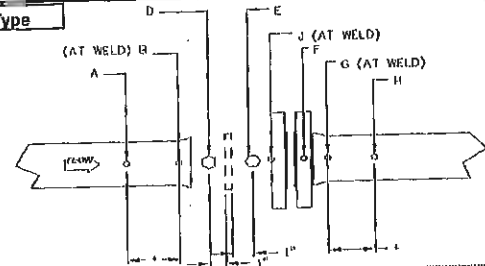
General Specifications

Customer:	RJV Gas Field Svcs	Date:	Dec. 14, 2012
Location:	Husky Energy	P.O. Number:	125991
Serial No.	11264364509	Work Order No.	112643645
Assembly Part No.	9A-MR_52_0091C	Part No.	40552-33221
Orifice Fitting:	2" 600# Sch 80 Dual Chamber Meter Run	Meter Tube Type No.	2
Str. Vane / Flow Cond.:		Yes	X No

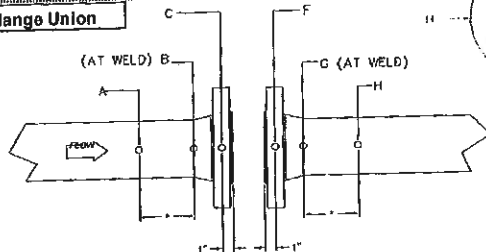
Type 1 Flanged Type



Type 2 Flangeweld Type



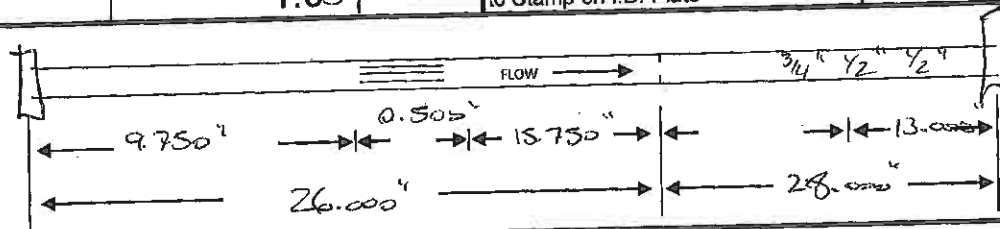
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AGA/API Figure
3 (2000)

0.70

Meter Tap Location

Upstream

N/A

Downstream

N/A

Remarks:

68*

Inspector:

Chris Robertson



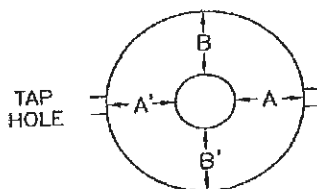
www.c-a-m.com
Tel.: 780.468.2941
Edmonton, AB
NQS-F-01 Rev.4 10/21/11

**Cameron Measurement Systems**

3707 - 97th Street
Edmonton, Alberta, Canada T6E 6J2

**QUALITY CONTROL
INSPECTION REPORT**

Customer: RJV Gas Field Svcs Date: January 11, 2013
Location: Husky Energy Purchase Order No.: 125991
Serial No.: 11264364509 Orifice Fitting: 2" 600# sch 80 Dual Chamber Meter Run
Assembly No.: 9A-MR_52_0091C Hydrostatic Test Pressure: 2225
Meter Tube Design Standard API 14.3 Duration: 15 Minutes

ECCENTRICITYHorizontal $(A - A')/2$Vertical $(B - B')/2$

0.003	0.005
0.004	0.002

Measurement Instrument:

Mitutoyo Dial Indicator**PRESSURE TAP HOLE VARIATION**

Distance from Plate & Hole Diameter

Upstream	Hole	Downstream	Hole
1.005	0.372	1.005	0.378

Measurement Instrument:

PAV Electronic Depth Gauge**SURFACE ROUGHNESS****Roughness Measurement Location**

Upstream Tube, One Pipe Diameter from Weld
Upstream at Pressure Tap Hole
Downstream at Pressure Tap Hole
Downstream 1" from End of Flange

Microinches

99
103
126
89

Measurement Instrument:

Mitutoyo 212 Surftester**DIFFERENTIAL TEST**

Water Hydrostatic Method at 50 psi
Duration 5 Minutes Minimum

Visual: No Leaks

Measurement Instrument:

McDaniels Gauge 0 -100 psiWork Order #: 112643645Lorne Dagg/ Leigha Jarvis

NUFLO™ DUAL CHAMBER ORIFICE FITTING

PART NO. 40552-33221
SERIAL NO. 11264364509
SIZE 2.0 BORE 1.939
SWP 1480 FLG 600
TRIM SWEET

CRN (ASME CODE) 0F01120.2C

 **CAMERON**
EDMONTON, ALBERTA, CANADA

TO REMOVE PLATE FROM CHAMBER
1. CLOSE ORIFICE CHAMBER (INDEX ORIFICE OUT OF OPERATION)
2. OPEN BLEED VALVE
3. OPEN CHAMBER LID (REMOVE TWO TOP NUTS ONLY)
4. REMOVE ORIFICE PLATE (PRY ON HOLES IN RETAINER HANDLE)

TO PLACE ORIFICE PLATE IN OPERATION
1. REPLACE ORIFICE WITH OUTLET ON PLATE AND SEAL ON RETAINER FACING UPWARD
2. CLOSE LID
3. CLOSE BLEED VALVE
4. OPEN EQUALIZING VALVE
5. OPEN ORIFICE CHAMBER (INDEX ORIFICE INTO OPERATION)
6. CLOSE EQUALIZING VALVE

NUFLO™ METER RUN

ASSY NO.

9A-MR_52_0091C

SERIAL NO. 11264364509
PIPE SIZE 2.0
AGA (API) 3 (2000)
W.O. NO. 112643645

UIS DIA 1.939 DIS DIA 1.940
SCH 80 RATING 600
MATL WCB DATE 01/13

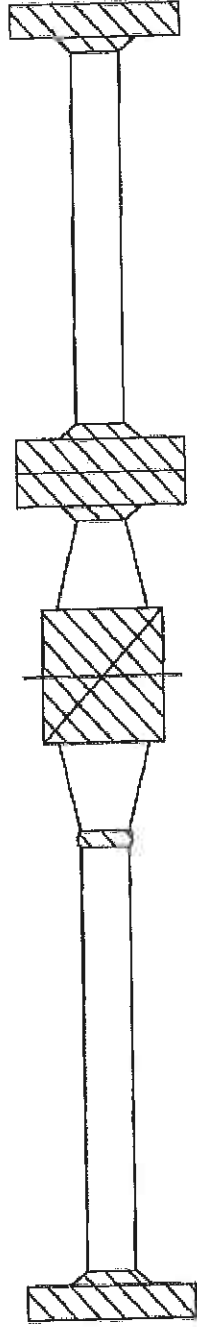
CALIBRATION
CERTD BY

CAMERON

CRN (ASME CODE) 0F01120.2C

 **CAMERON**
EDMONTON, ALBERTA, CANADA

WELD AND RADIOGRAPHY IDENTIFICATION MAP



Description: 2" 600# sch 80 Dual Chamber Meter Run			
Serial No.: 11264364509			
Customer: RJV Gas Field Svcs			
P/O No.: 125991	TAG No.: N/A		
W/O No.: 112643645	End User: Husky Energy		
Radiography Unit: N/A			
Welder: Jeff Harrington	File No.: W-23651		
Date: 1/11/2013	Lorne Dagg		
Symbol: T	Quality Assurance Inspector		

CAMERON
Measurement Systems
7944 - 10th Street NE
Calgary, Alberta
T2E 8W1



A.O.Q.P. No. 7105 (c)

LUDWIG ASSOCIATES LTD.

Materials and Welding Consulting

WELDER PERFORMANCE QUALIFICATION CARD

Name: Jeff Harrington

ABSA File No.: W - 23651

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation.
The performance qualification is in accordance with ASME Section IX of the ASME Code and subject to
the conditions on the reverse side.

August 10, 2012

Date of Test

Signature of Welder or Machine Operator

Colin Burnette

Welding Examiner

Card No. 01758

PERFORMANCE QUALIFICATION

01758

Process(es)	GMAW	SMAW	Materials (P.No.)	P1
Filler Metal Group (F.No.)	F6	F4	Min. Outside Diameter	1.0 in. O.D.
Max. Deposited Weld Metal	0.110 in.	0.672 in.	Position(s) Qualified	F6: SP 0-45°, Flat F4: Flat
Backing	With or Without	With	Backing Gas	With or Without
Progression	Downhill	N/A		

August 10, 2014

P.Q. Expiry Date

Welding Examiner Signature

E-00391

Examiner File No.



A.O.Q.P. No. 7105 (c)

LUDWIG ASSOCIATES LTD.

Materials and Welding Consulting

WELDER PERFORMANCE QUALIFICATION CARD

Name: Jeff Harrington

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The performance qualification is in accordance with ASME Section IX of the ASME Code and subject to
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August 10, 2012

Date of Test

Signature of Welder or Machine Operator

Colin Burnette

Welding Examiner

Card No. 01759

PERFORMANCE QUALIFICATION

01759

Process(es)	GMAW	FCAW	Materials (P.No.)	P1
Filler Metal Group (F.No.)	F6	F6	Min. Outside Diameter	2.875 in. O.D.
Max. Deposited Weld Metal	0.110 in.	MAX	Position(s) Qualified	GM: SP 0-45°, Flat FC: Flat & Horizontal
Backing	With or Without	With	Backing Gas	With or Without
Progression	Downhill	N/A		

August 10, 2014

P.Q. Expiry Date

Welding Examiner Signature

E-00391

Examiner File No.



19699

Grade B Pressure Welders
Certificate of Competency

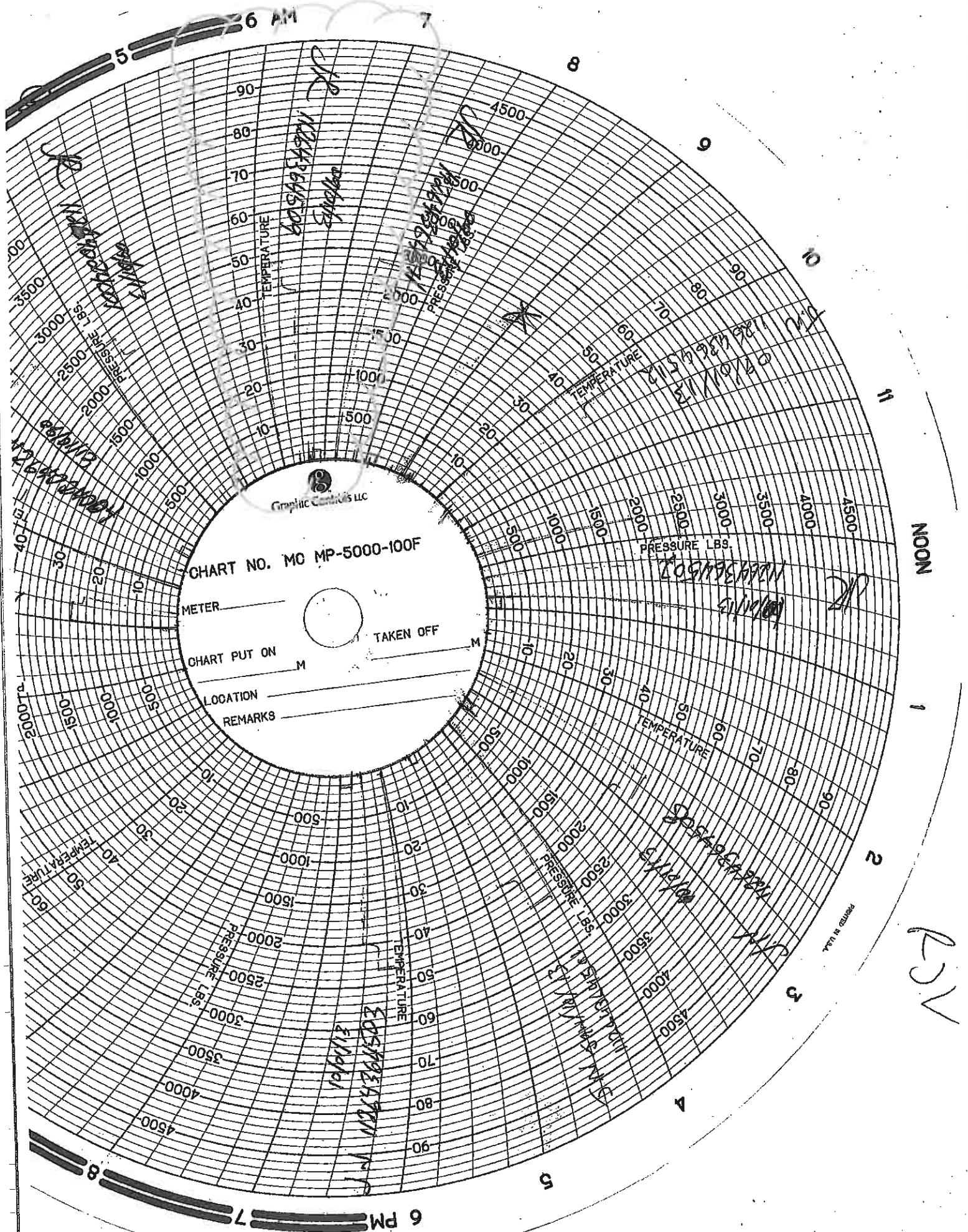
This is to certify that Jeff Harrington
having complied with provisions of the Safety Codes Act, is authorized to engage
in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton
April 01, 2006

W-23651

File no

Chief Inspector and Administrator



MST1201
4/15/11

Highland Foundry Ltd.
CHEMICAL AND PHYSICAL ANALYSIS

2" DUAL BODY

Page 1
9:47:02

Product# . . . : 40552-026
Customer Part#: 40552-026
Customer . . . : CAMERON MEASUREMENT SYSTEMS
ACCOUNTS PAYABLE
5003 - 93RD STREET
EDMONTON AB T6E 5S9
CANADA

Order/Item# . . : 35016 / 3
Customer P.O.#: 4502787934

Approved by: *Shauna Puchniak*
Quality Assurance Technician

Melt#	Quantity	Date	Heat Treat	BATCH #	Specification
6-10395	30	3/22/11		ZE2 - -	ASTM A216 WCB

C H E M I C A L S			
C : .2000	MN : .7700	SI : .5100	P : .0170
S : .0280	NI : .0900	CR : .1800	MO : .0500
CU : .2500	V : .0230		

P H Y S I C A L S	
YIELD KSI	48.5
ELONGATION %	31
IMPACT FT LB	
IMPACT FT LB	
TENSILE KSI	72.1
RED OF AR. %	56
IMPACT FT LB	
TEST TEMP.	

CE = .40



MATERIAL TEST REPORT

9670-187th Street, Surrey, BC Canada V4N 3N6
Phone 604-888-8444 Fax 604-888-3634
www.highlandfoundry.com

ISO 9001:2008

Hardness Test Report



OUR REPUTATION IS UNMATCHED

Customer	Cameron Measurement Systems	PO Number	4502787934
Part Number & Description	40552-026 2" Dual CH. Body 150#-900#	Order Number	35016/3
Material Specification	ASTM A216 Grade WCB	Date	04/15/11
Inspection Method	ASTM E10	Qty	148

Equipment Used: Portable King Brinell Tester

Type of Ball: Regular ☒ Carbide ☐

Load: 3000 kg

Holding Time: 10 sec

Hardness Required: 237 Max Brinell ☒ Rockwell ☐

Heat No. / Batch No.	% of Batch Tested	Hardness Obtained
3-10366/ZD8	10%	170 170 156
3-10367/ZD9	10%	152 152 152
4-9895/ZE1	10%	163 163 163
3-10373/ZE3	10%	163 163 170
6-10395/ZE2	10%	170 156 156

Remarks:

Tested By:

Max Zanazovsky
Inspector

2nd D/C 410

MST1201
1/12/12

Highland Foundry Ltd.
CHEMICAL AND PHYSICAL ANALYSIS

Page 1
9:23:17

Product# . . . : 40701-052 Order/Item# . . : 36096 / 2
Customer Part#: 9A-40701-052-00000 Customer P.O.#: 4503141142
Customer . . . : CAMERON MEASUREMENT SYSTEMS
 ACCOUNTS PAYABLE
 5003 - 93RD STREET
 EDMONTON AB T6E 5S9
 CANADA

Approved by: 
Shauna Puchniak
Quality Assurance Technician

Heat Treatment: 1700F, 2.5 Hours, Air Cool

Melt#	Quantity	Date	Heat Treat	BATCH #	:	Specification
6-10790	43	12/15/11		4CP	- -	ASTM A216 WCB

C H E M I C A L S			
C :.2200	MN:.7200	SI:.5100	P :.0100
S :.0300	NI:.1100	CR:.3000	MO:.0400
CU:.1800	V :.0020		

P H Y S I C A L S			
YIELD KSI	49.7	TENSILE KSI	75.6
ELONGATION %	26	RED OF AR. %	36
IMPACT FT LB		IMPACT FT LB	
IMPACT FT LB		TEST TEMP.	

CE = .43



MATERIAL TEST REPORT

9670-187th Street, Surrey, BC Canada V4N 3N6
Phone 604-888-8444 Fax 604-888-3634
www.highlandfoundry.com

ISO 9001:2008

Hardness Test Report



OUR REPUTATION IS STAINLESS®

Customer	Cameron Measurement Systems	PO Number	4503141142
Part Number & Description	40701-052 2" Dual Ch. LID	Order Number	36096/2
Material Specification	ASTM A216 Grade WCB	Date	01/12/12
Inspection Method	ASTM E10	Qty	87

Equipment Used: Portable King Brinell Tester

Type of Ball: Regular ☒ Carbide ☐

Load: 3000 kg

Holding Time: 10 sec

Hardness Required: 237 Max Brinell ☒ Rockwell ☐

Heat No. / Batch No.	% of Batch Tested	Hardness Obtained
1-5164/3CP	10%	179, 179, 179
		170, 163
6-10790/4CP	10%	179, 197, 187
		187, 187

Remarks:

Tested By:

Kulvinder Sandhu
Kulvinder Sandhu
CGSB 48.9712, Level 2, Reg# 10783

w/o 17660-001

 $1/2$

Department of Statistics, University of
Winnipeg, Winnipeg, Manitoba R3S 0V1
19711 University Avenue
Telephone: 225 24 67 66
Telex: 225 24 67 66



ASCOMETAL

DOCUMENT DE CONTROLE
Inspection Documents / Prüfbescheinigungen

Inspection Certificate 3.1
 NEN 10204 10204
 2004 2004

Edverson : 90162405 / 000007
Nº Controle : 030030171558

Date : 21.04.2011
Date of Edition : 17.06.2011

ORDRE DE FABRICATION : 112681AB
 FROM ORDER NUMBER : 112681AB
 APPAREIL SUIVIE PAR : ORFÈVRE CINETTE
 FROM CINETTA : 112681AB
 VREFERENCE : 501030004 / 1060310 (70047 195)
 FROM CINETTA : 112681AB
 VREFERENCE : SOC-13240 527P182740 (5497
 FROM CINETTA : 112681AB
 QUANTITE : 8,05 TO NUNCE : A102
 FROM CINETTA : 112681AB
 PRODUCT : A102 RON ECH 6,759 IN NOR
 FROM CINETTA : 112681AB
 SPECIFICATION CLIENT : CORUS 0376-01GR
 FROM CINETTA : 112681AB
 END : SANS DATE : 05.11.2002
 FROM CINETTA : 112681AB
 SPECIFICATIONS SUPP. : SANS

DESTINATAIRE DOCUMENT
DOCUMENT FOR OFFICER

Société
ENCORE METAIS
EDMONTON
ALBERTA T6E 0A1
Canada

MARQUE :

CC: : D050292213

Analyse chimique de coulée / Ladite analysis / Schmelzanalyse

Analyse chimique de coulées / Ladle analysis / Schmelzenanalyse											
Éléments (%)			C	Mn	Si	Cl	Mg	Cl	P	S	Al
Éléments	Spéc min	Min	0,170	1,177	0,195	0,149	0,155	0,023	0,150	0,010	0,018
Valeur	Actual	Werte	0,270	1,330	0,360	0,109	0,200	0,130	0,200	0,035	0,040
Éléments	Spéc max	Max	V	C%							
Éléments	Spéc min	Min	0,095	0,0600							
Valeur	Actual	Werte	0,080	0,0200							
Max	Spéc max	Max									
Contraintes groupées			Min		Valeur		Max				
Éléments					0,422		0,450				
Cl ₂					0,476		1,560				
Si+Cr+Mn+Cu					0,171		0,326				
Cr+Mo											

Caractéristiques mécaniques / Mechanical properties / Mechanische Kennwerte

Traction / tensile test / Zugversuch
 Sapper / Batch number / Loss number : N431
 Diameter of test specimen (in)
 and radius tested
 Longitudinal test
 Tensile test temperature (°F)

Length (mm): res.		UTS		E (2m)		RA	
Tensile Test Temperature (°F)		PSI		%		%	
Element	Element	Test	PSI		%		%
1'000	Unit	Microball	76800		22.0		30
Min	Spec min		45000		73.385		64
Valueur	Actual	Verite	93000		30.9		
Maxi	Spec max	Max					

Resilience / impact test / Kerbschlagproben
Kappe / Batch number / Lot number: N431
notch test 10 x 10
Modulus testing
Charpy V notch
Longitudinal test
Impact test temperature (°F)

[illegible]

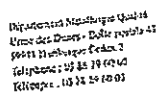
que se constata que los presidentes indios son conformes con
prescripciones de la comunidad, respecto a la dotación de
terrenos de 14 hectáreas de 14 hectáreas de 14 hectáreas de
14 hectáreas de 14 hectáreas de 14 hectáreas de 14 hectáreas de

Wir bestätigen hiermit, dass die obengenannte Einrichtung den
Bestellungsvermerk des ELK-Nachlasses 2014/2016 vom 18.
September 2009 entspricht und das gezeichnete Foto die
Realisation des hiermit als letzter Akt der Umsetzung des Antrags
gezeichneten

Siège social : Immeuble le Colisée - Avenue de l'Arche, Fribourg de l'Arche, 92-17 COURBEVOIE Cedex

ASCOMETAL
SA à direction et conseil de surveillance
au capital de 65 285 430 EUR
131 048 132 RCS Nanterre

PAGE SET# 1 / 2



DOCUMENT DE CONTROLE
Inspection Documents / Prüfurscheinigungen

Inspection Certificate 3.1
AFEN 10202 DIN EN 10204
2004 2004

Livraison : 80162105 / 000007
N° Contrôle : 030200171858

Date : 21.04.2011
Date d'édition : 17.06.2011

Inspection Certificate No. 1 SPEN 10204 / INK EN 10204 2004		N° Contrôle : 10204 2004		N° Contrôleur : 10204 2004		DESTINATAIRE DOCUMENT EXCLUDED FOR EMPLOYEE	
ORDRE DE FABRICATION : 102041AR TOUTES ORDRES SUR PERMANENCE				COULEUR : 10204 FABRIQUE			
AFFAIRE SUIVIE PAR : ORPHEE CINETTE TOUTES ORDRES SUR PERMANENCE							
NUMEROUSSE : 501060004 / 000010 (70047195)							
REFERENCE : SOC-13240 527P(02649) (409							
VIRIFICATION : 21.12.2010							
QUANTITE : 5.075 TO				NUANCE : A10S			
PRODUIT : A10S RON ECK 6,750 IN NOR							
SPECIFICATION CLIENT : CORUS 0576-DIOR				DATE : 05.11.2003			
IND : SANS				DATE PARTI :			
SPECIFICATIONS SUPP. : SANS							
CCU : D0005022TS							
Traitement thermique / Heat treatment / Warmbehandlung							
Traitement	T Min	T	T Max	Durée	Refroidissement		
Nom, temp.		1653 °F		3,30 hrs	Normalized air cooled		
Dureté de surface sur barres / Bars surface hardness / Stäbe Randhärt							
Éléments	Élément	Tout	BHN up				
Min	Spec min	Min	163				
Valeur	Actual	Valeur	187				
Max	Spec max	Max					
Autres résultats / Other results / Andere Prüfergebnisse							
Éléments	Mini	Valeur	Max				
Qualité size M-Qualität Ehn	5	7	8				
Electric furnace - vacuum degassed Conforms to NACE MR01-75 Ultrasonic testing 100% satisfactory Conforms to ASTM A495 - A350LF2 Conforms to ASTM A696 gr C - ASME SA696 gr C Conforms to API 6A type 4SR - PSL1-3 cl I. Conforms to ASME SA 696SA350LF2							
I.N. Produit en France / Product of France / In Frankreich hergestellt N331							
Visé au chef de service Signed by inspection supervisor							

l'Isa du chef de service
Stamp of inspection supervisor
Der Werkssachverständige
Anne Fasquella

AF-11

Nous constatons que les produits vendus aux consommateurs sont principalement de la commodité, représentant la moitié environ du chiffre d'affaires. Le septembre 1961, les produits de marque de première main ne plus qu'à la semaine qui précède.

We hereby certify the above mentioned products are compliant with the under requirements, are compliant with the September 19th 2000 - 2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-2560-2561-2562-2563-2564-2565-2566-2567-2568-2569-2570-2571-2572-2573-2574-2575-2576-2577-2578-2579-2580-2581-2582-2583-2584-2585-2586-2587-2588-2589-2590-2591-2592-2593-2594-2595-2596-2597-2598-2599-2600-2601-2602-2603-2604-2605-2606-2607-2608-2609-2610-2611-2612-2613-2614-2615-2616-2617-2618-2619-2620-2621-2622-2623-2624-2625-2626-2627-2628-2629-2630-2631-2632-2633-2634-2635-2636-2637-2638-2639-2640-2641-2642-2643-2644-2645-2646-2647-2648-2649-2650-2651-2652-2653-2654-2655-2656-2657-2658-2659-2660-2661-2662-2663-2664-2665-2666-2667-2668-2669-2670-2671-2672-2673-2674-2675-2676-2677-2678-2679-2680-2681-2682-2683-2684-2685-2686-2687-2688-2689-2690-2691-2692-2693-2694-2695-2696-2697-2698-2699-2700-2701-2702-2703-2704-2705-2706-2707-2708-2709-2710-2711-2712-2713-2714-2715-2716-2717-2718-2719-2720-2721-2722-2723-2724-2725-2726-2727-2728-2729-2730-2731-2732-2733-2734-2735-2736-2737-2738-2739-2740-2741-2742-2743-2744-2745-2746-2747-2748-2749-2750-2751-2752-2753-2754-2755-2756-2757-2758-2759-2760-2761-2762-2763-2764-2765-2766-2767-2768-2769-2770-2771-2772-2773-2774-2775-2776-2777-2778-2779-2780-2781-2782-2783-2784-2785-2786-2787-2788-2789-2790-2791-2792-2793-2794-2795-2796-2797-2798-2799-2800-2801-2802-2803-2804-2805-2806-2807-2808-2809-2810-2811-2812-

Wer beantragen möchte, kann die oben genannten Bedingungen des
Nominationsverfahrens, die EU-Richtlinie 2000/13/EG von 18
März 2000, Artikel 1 und die geltenden Gesetze sowie
Richtlinien, die die Rollen in der jeweiligen Struktur der Armee
enthalten.

Siège social : Immeuble Le Confère - Avenue de Farsch, Freshburg de l'Arche, 92410 COURBEVOIE Cedex

ASCOMITAL.
SA à direction et conseil de surveillance
au capital de 65 285 436 EUR
331 648 132 RCS Nanterre

PAGE - SEITE 2:2

[illegible]



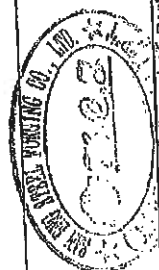
SAN ENG STEEL FORGING CO. LTD
311, Jen Hsin Road, Jen Wu District
Kaohsiung, Taiwan, R.O.C.
TEL: 07-3724249; FAX: 07-3712923
URL: www.saneng.com.tw
e-mail: saneng@ksia.seed.net.tw

MILL TEST CERTIFICATE

EN10204-3.1(B)IN50049/3.1(B)
Customer: SEYBOLD INTERNATIONAL CORP.
Order No.: Z004594(S)-VL

Certificate No.: SE-4594E
Date: 07/02/2012
Page: 1 OF 1

ORDER NO.: 2004594(G)VL			MATERIAL SPECIFICATIONS			DIMENSIONAL SPECIFICATIONS										
TEL:07-3724249; FAX:07-3712353 URL: www.saneng.com.tw e-mail: saneng@kbs.seed.net.tw			PRODUCT			ASTM A105-11a/ASME SA105-11a										
FORGED CARBON STEEL FLANGES			ASTM A105-11a/ASME SA105-11a			ASME B16.5-09 CSA Z245.12										
Item No.	CODE NO	DESCRIPTION	QUANTITY	CHEMICAL COMPOSITION (%)												CE(%)
				C	Si	Mn	P	S	Cu	Cr	Ni	Mo	V	Nb	N	
				Min Max												
1	4616-105S	150 WNRFS XS(ID=1/2"OD) 2" A105N	1,200 PCE	0.350 0.220	0.100 0.220	0.600 1.050	0.035 0.019	0.040 0.005	0.400 0.005	0.300 0.010	0.400 0.010	0.120 0.003	0.080 0.010	0.020 0.001	0.005	0.417
3	4901-105S	600 WNRFS XS(ID=1/2"OD) 2" A105N	1,100 PCE	0.190 0.220	0.210 0.250	1.050 1.150	0.011 0.014	0.009 0.005	0.050 0.005	0.110 0.010	0.040 0.010	0.020 0.003	0.001 0.001	0.001 0.001	0.008	0.404
4	4901-105S	600 WNRFS XS(ID=1/2"OD) 2" A105N	100 PCE	0.212 0.210	0.250 0.250	1.050 1.050	0.011 0.011	0.013 0.013	0.018 0.006	0.045 0.010	0.048 0.010	0.005 0.002	0.037 0.003	0.005 0.001	0.005	0.409
5	4931-105	600 WNRFS S160 2" A105N	247 PCE	0.210 0.212	0.230 0.250	1.150 1.050	0.014 0.011	0.005 0.005	0.006 0.007	0.010 0.020	0.010 0.010	0.002 0.003	0.003 0.005	0.001 0.001	0.007	0.408
6	4931-105	600 WNRFS S160 2" A105N	48 PCE	0.210 0.212	0.230 0.250	1.050 1.050	0.011 0.011	0.005 0.005	0.007 0.008	0.020 0.020	0.010 0.010	0.003 0.002	0.005 0.004	0.001 0.001	0.007	0.415
7	24118-105	300 WNRFS XS 10" A105N	25 PCE	0.220 0.190	0.220 0.120	1.130 1.110	0.017 0.021	0.005 0.003	0.007 0.008	0.020 0.130	0.010 0.110	0.002 0.005	0.004 0.005	0.001 0.001	0.007	0.407
8	4814-105	300 WNRFS XS 10" A105N	20 PCE	0.190 0.190	0.120 0.210	1.110 1.110	0.021 0.012	0.003 0.005	0.008 0.120	0.200 0.130	0.010 0.110	0.002 0.005	0.004 0.005	0.001 0.001	0.008	0.421
9	4338-105	300 SORF 18" A105N	10 PCE	0.190 0.190	0.120 0.210	1.110 1.110	0.021 0.012	0.003 0.005	0.008 0.120	0.200 0.130	0.010 0.110	0.002 0.005	0.004 0.005	0.001 0.001	0.008	0.421
10	4650-105	150 WNRFS XS 24" A105N	10 PCE	0.190 0.190	0.120 0.210	1.110 1.110	0.021 0.012	0.003 0.005	0.008 0.120	0.200 0.130	0.010 0.110	0.002 0.005	0.004 0.005	0.001 0.001	0.008	0.421
Item No.	Heat No.	T.S.(MPa) Y.S.(MPa)	E.L.(%)	Hardness (HRC)	RA(%)	Impact Test		Material Supplier	HEAT TREATMENT(°C)		REMARKS		Manager of Quality Assurance Dept			
						Min	Max		Min	Max						
1	4559340	531.0 485.0	33.4 22.0	137	68.6	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
3	230143	529.0 501.4	35.6 34.2	153/151	66.5	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
4	4455615	513.9 520.0	34.2 35.4	152/150	68.6	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
5	21379	513.9 545.2	34.2 37.4	152/150	70.4	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
6	4622608	513.9 545.2	34.2 37.4	152/150	74.5	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
7	21379	513.9 545.2	34.2 37.4	152/150	73.8	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
8	4489555	513.9 545.2	34.2 37.4	152/150	73.8	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
9	4316236	513.9 545.2	34.2 37.4	152/150	73.8	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
10	450528	513.9 545.2	34.2 37.4	152/150	73.8	1	2	ACOMINAS	880°CX3HRS	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	CONFORMS WITH NACE MR0103-10 AND NACE MR0176/ISO 15156-2:08	ACOMINAS	Manager of Quality Assurance Dept			
*: T.S. = Tensile Strength, Y.S. = Yield Strength, E.L. = Elongation, R.A. = Reduction of Area. *: N=Normalized, A=Annealed, Q=Quenched, T=Tempered, S.T.=Solution Treated, S.R.=Stress Relieved, A.C.=Air Cooled, F.C.=Furnace Cooled, W.C.=Water Cooled, O.C.=Oil Cooled. *: C.E. Value = C + (Mn/16) + (Cr + Mo + V) / 5 + (Ni + Cu) / 15																
We hereby certify that the material has been tested in accordance with the above specification and also with the requirements called for by the above order.																



*1: T.S. = Tensile Strength, Y.S. = Yield Strength, E.L. = Elongation, R.A. = Reduction of Area.
*2: N=Normalized, A=Annealed, Q=Quenched, T=Tempered, S.T=Solution Treated, S.R=Stress Relieved,
A.C=Air Cooled, F.C=Furnace Cooled, W.C=Water Cooled, O.C=Oil Cooled.
*3: C.E. Value = C + (Mn/5) + (Cr + Mo + V)/5 + (Ni + Cu)/15

We hereby certify that the material has been tested in accordance with the above specification and also with the requirements called for by the above order.



VL QA Approved



Manufacturer of Piping and Pressure Vessel Components

4404 Haygood St - Houston, TX 77022

Phone: 713-695-3633 Fax: 713-695-3528

A Bonney Forge Company

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Sold To: TRANS AM PIPING PRODUCTS
 LTD
 9335 ENDEAVOR DRIVE S.E.
 CALGARY AB T3S 0A1

MTR #: 238,725

PO #: CI-12-523

Sales Order #: C001213717

Date: 09/25/2012

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Certified Material Test Report

Heat Code: 58847

Material: A/SA105N 09

Item	Quantity	Description
4	1,000	36 - 1 1/2 X 3/4 3M THP A/SA105N
17	2,500	36 - 1 1/2 X 3/4 3M SWP A/SA105N

Chemical Composition

Ladle	C	CR	CU	MN	MO	NB	NI	P
	0.201	0.06	0.140	0.97	0.007	0.012	0.03	0.012
	S	SI	V					
	0.019	0.18	0.004					
Carbon Equivalency:		Ladle		0.39				

	Tensile PSI	Yield PSI	Elong %	RA %	Hardness	
Product	73,500	47,200	29.00	59.00	141 BHN	141 BHN

Normalized

IAW NACE MR0175/ISO 15156-2009

Marie Dehmer
 Quality Assurance Representative

P.O.# 4503105088 Item# 4
 Heat Number: 58425
 Trans Am Piping Products Ltd. - Rev'd By: SB
 Shipment/Seq #: S 11 - 1834 9

1/2X3/4-36 CL 3000 FS THREADED PIPE
 A105N

Page 38 of 43



Manufacturer of Piping and Pressure Vessel Components
 4407 Haygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Bunney Forge Company

Sold To: TRANS AM PIPING PRODUCTS
 LTD
 9335 ENDEAVOR DRIVE S.E.
 CALGARY AB T3S 0A1

MTR #: 216,196

PO #: CI-11-571

Sales Order #: C001112723

Date: 10/03/2011

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105N-09

Item
8

Description
36 - 3/4 X 1/2 3M THP
A/SA105N

Chemical Composition

Ladle	C	CA	CU	MB	MO	NH	NI	P
	0.200	0.05	0.110	1.02	0.010	0.000	0.04	0.009
S	0.019	0.18	0.004					
Carbon Equivalency:		Ladle		0.39				

Product	Tensile PSI	Yield PSI	Elong %	RA %	Hardness	
Normalized	76,250	51,875	30.80	63.95	137 BHN	139 BHN

IAW NACE MR0175/ISO 15156,2009

Marie Dehmer
 Quality Assurance Representative



3020 FORON RD.
1121 HARRISON AV PMB 293
CENTRALIA WA 98531

Material Test Report

Manufactured by:
Salzgitter Mannesmann Preciso
BP77 ZI VITRY MAROLLES
Vitry-le-Francois 51303 FR
(Vitry) FRANCE, Country of Origin: FRANCE

Customer Order No: 4503249229	Scot Order No: 760008.02	Country of Origin: FRANCE
CAMERON MEASUREMENT SYSTEMS 5003-93RD STREET EDMONTON AB T6E-5S9	Material Supplier: 99129.00 Part Number: 9A-C1609-016-04200 Scot Rec. No: 10108319	

Heat Number 9011769773	Grade: MS-	Dimensions: 2.375" OD 1.939" ID X 25R30
Scot Spec: MS-	ASTM Spec: A106-B	Other Spec: MS00022
Description: CDS NORMALIZED STEEL TUBING		

Chemical Analysis									
C	Mn	P	S	Si	Cr	Ni	Mo	CE	
0.17	0.754	0.009	0.003	0.195	0.193	0.067	0.051	0.3579	

Mechanical Test Results			
Yield Strength (PSI)	Tensile Strength (PSI)	Elongation (%) in 2" G.L.	Hardness
51053	71938	34.45	

Charpy Impact Energy			
Temp	1	2	3

Eddy Current
OK

Young Woo Lee
Quality Assurance
02/17/12

The reported analysis and test results are certified to be the same as furnished to us by our supplier.
All records and test reports covering the above materials are on file at Scot Industries and may be examined by your personnel or by any agent authorized by you.