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FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single-Chamber, Completely Shop- or Field-Fabricated Vessels Only)
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Moore Control Systems, Inc., 14827 I-10 East, Baytown, Tx 77523
(Name and address of Manufacturer)

2. Manufactured for Marathon Oil Co., Carlsbad, New Mexico
(Name and address of Purchaser)

3. Location of installation Marathon Oil Co., 2423 Bonita St., Carlsbad, New Mexico 88220
(Name and address)

4. Type: Vertical (Horizontal or vertical, tank) | 18165-10 (Manufacturer's serial number) | (CRN) | 18165-XXXX Rev. 1 (Drawing number) | 17 (National Board number) | 2018 (Year built)

5. ASME Code, Section VIII, Div. 1: 2017 Edition [Edition and Addenda, if applicable (date)] | (Code Case number) | [Special service per UG-120(d)]

6. Shell: SA-516-70 (Material spec. number, grade) | .375" (Nominal thickness) | 0" (Corr. allow.) | 4'-0" O.D. (Inner diameter) | 20'-0" SM/SM [Length (overall)]

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, thk)	Bolting: Washer Material

7. Seams: Type 1 [Long. (welded, dbl., sngl., lap, butt)] | Full [R.T. (spot or full)] | 100% (Eff., %) | (H.T. temp.) | (Time, hr) | Type 1 [Girth (welded, dbl., sngl., lap, butt)] | Spot [R.T. (spot or full)] | 100% (Eff., %) | 2 (No. of courses)

8. Heads: (a) Material SA-516-70N (Spec. no., grade) (b) Material SA-516-70N (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	.3125"	0"			2:1				Concave
(b)	End	.3125"	0"			2:1				Concave

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, thk)	Bolting: Washer Material
(a)												
(b)												

9. MAWP 250 PSI (Internal) | (External) at max. temp. 150 ° F (Internal) | (External).

Min. design metal temp. -20 ° F at 250 PSI. Hydro., pneu., or comb. test pressure Hydro @ 325 PSI.

Proof test ____.

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material: Nozzle	Material: Flange	Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	Attachment Details: Nozzle	Attachment Details: Flange	Location (Insp. Open.)
Manway w/Cvr *	1	18" 150#	RFSO	SA-106B	SA-105	.938"	0"	SA-516-70	Welded	Welded	Shell
Inlet	1	6" 150#	RFWN	SA-106B	SA-105	.432"	0"		Welded	Welded	Shell
Water Outlet	1	3" 3000#	CPLG	SA-105		.375"	0"		Welded		Shell
Gauge Glass	2	1/2" 6000#	CPLG	SA-105		.33"	0"		Welded		Shell
Supply Gas	1	1/2" 6000#	CPLG	SA-105		.33"	0"		Welded		Head
Drain	1	2" 3000#	CPLG	See Note 1		.33"	0"		Welded		Head

11. Supports: Skirt Yes (Yes or no) Lugs ____ (Number) Legs ____ (Number) Other ____ (Describe) Attached Welded to Head (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: Shell, Serial# 7935C & 7967M, Bise Welding & Fabricating, Inc., Cert# 30911
(Name of part, item number, Manufacturer's name and identifying stamp)

See U4 attached. No Charpy Impact Testig per UG-20(f)

FORM U-1A

Manufactured by Moore Control Systems, Inc., 14827 I-10 East, Baytown, Tx 77523

Manufacturer's Serial No. 18165-10 CRN _____ National Board No. 17

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization number 52889 expires February 16, 2019.

Date 6-4-18 Co. name Moore Control Systems, Inc. (Manufacturer) Signed Kenneth Withe (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Moore Control Systems, Inc. at 14827 I-10 East, Baytown, Tx 77523.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Authorized Inspection Associates of Houston, Tx have inspected the component described in this Manufacturer's Data Report on 21MAY18, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 28JUN18 Signed _____ (Authorized Inspector) Commissions NB13111 (National Board Authorized Inspector Commission number)

(07/17)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Moore Control Systems, Inc., 14827 I-10 East, Baytown, Tx 77523
(Name and address of Manufacturer)

2. Manufactured for: Marathon Oil Co., Carlsbad, New Mexico
(Name and address of Purchaser)

3. Location of installation: Marathon Oil Co., 2423 Bonita St., Carlsbad, New Mexico 88220
(Name and address)

4. Type: Vertical (Horizontal, vertical, or sphere) | Vertical 2 Phase Separator (Tank, separator, heat exch., etc.) | 18165-10 (Manufacturer's serial number)

(CRN)	18165-XXXX Rev. 1 (Drawing number)	17 (National Board number)	2018 (Year built)

Data Report Item Number	Remarks
10.	Elbow-1-SA-234-WPB, S/80, 90° LR / Pipe-1-SA-106B, S/80
	* (QTY 16 Ea) 1 1/8" Dia. x 6 1/4" Lg. SA-193-B7 Studs w/ (2 Ea) SA-194-2H Heavy Hex Nuts
	(1) Gas Outlet Nozzle: 6" 150# RFWN, Flange-1-SA-105, S/80 / Pipe-1-SA-106B, S/80 .432" Thk., / Repad-1-SA-516-70, .375" Thk.
	0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Head
	(1) Safety Head Nozzle: 2" 3000# CPLG-1-SA-105, .3125" Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Head
	(1) PI Nozzle: 1/2" 6000# CPLG-1-SA-105, .33 Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Shell
	(1) Water LLC Nozzle: 2" 3000# CPLG-1-SA-105,, .3125" Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Shell
	(1) Relief Nozzle: 2" 3000# CPLG-1-SA-105,, .3125" Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Shell
	(1) Water Level Low Nozzle: 3/4" 6000# CPLG-1-SA-105,, .35" Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Shell
	(1) Oil Level High Nozzle: 3/4" 6000# CPLG-1-SA-105,, .35" Thk., 0" Corr. Allow., Nozzle / Flange Attachment: Welded, Welded in Shell

Certificate of Authorization: Type U No. 52889 Expires February 16, 2019

Date 6-4-18 Name Moore Control Systems, Inc. (Manufacturer) Signed Kenneth Withers (Representative)

Date 28JUN18 Name [signature] (Authorized Inspector) Commissions NB 13988 AR [National Board Authorized Inspector Commission number)

(07/17)

Serial # 18165-10

NB # 17.

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FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Bise Welding & fabricating, Inc. 1900 De Soto Houston, Texas 77091 (Name and address of Manufacturer)
2. Manufactured for: MCSI More Control Systems, Inc. 14827 I-10 East. Bytown, Tx 77523 (Name and address of Purchaser)
3. Location of installation: Unknown (Name and address)
4. Type: Cylinder [Description of vessel part (shell, two piece head, tube bundle)]; 7935 A Through F (Manufacturer's serial number); (CRN)
   (National Board number); (Drawing number); (Drawing prepared by); 2018 (Year built)
5. ASME Code Section VIII Div 1; 2017 [Edition and Addenda, if applicable (date)]; (Code Case number); [Special Service per UG-120(d)]
6. Shell (a) Number of course (s): 1 (b) Overall Length: 10'-0"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	48"OD	10'-0"	SA 516-70	.375"		1	Full						

Body Flanges on Shell

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material

7. Heads: (a) (Material spec, number, grade or type) (H.T. - time and temp) (b) (Material spec, number, grade or type) (H.T. - time and temp)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)														
(b)														

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)												
(b)												

8. MAWP (Internal) (External) at max temp. (Internal) (External) Min. design metal temp. at
9. Impact Test No. (Indicate yes or no and the component(s) impact tested) at test temperature of
10. Hydro~~, pneu., or comb~~. test pressure. PSI Proof Test
11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	

12. Identification of part (s)

Name of Part	Quantity	Line No.	Mfr's Identification No.	Mfr's Drawing No.	CRN	National Board No.	Year Built

13. Support: Skirt (Yes or no) Lugs (Number) Legs (Number) Other (Describe) Attached (Where and how)
14. Remarks MCSI PO# 181656058A Desing By Others Formed In Accordance With UG 79, UG 80 and UCS 79
No Hydro Preformed

(07/17)

FORM U-2A

Manufactured by Bise Welding & fabricating, Inc. 1900 De Soto Houston, Texas 77091

Manufacturer's Serial No. 7935 A - F CRN _____ National Board No. _____

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction and workmanship of this pressure vessel part conform to the ASME Boiler and pressure Vessel Code, Section VIII, Division 1.

"U" Certificate of Authorization Number 30,911 Expires January 30, 2020

Date 2.23.18 Name Bise Welding & fabricating (Manufacturer) Signed _____ (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company of Lynn, MA have inspected the pressure vessel part described in this Manufacturer's Data Report on 2-23-18 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2-23-18 Signed _____ (Authorized Inspector) Commissions NB 14513 AI (National Board Authorized Inspector Commission number)

(07/17)

Serial # 18165-10
NB# 17

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FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Bise Welding & fabricating, Inc. 1900 De Soto Houston, Texas 77091 (Name and address of Manufacturer)
2. Manufactured for: MCSI More Control Systems, Inc. 14827 I-10 East, Bytown, Tx 77523 (Name and address of Purchaser)
3. Location of Installation: Unknown (Name and address)
4. Type: Cylinder [Description of vessel part (shell, two piece head, tube bundle)] | 7967 M (Manufacturer's serial number) | (CRN) | (National Board number) | (Drawing number) | (Drawing prepared by) | 2018 (Year built)
5. ASME Code Section VIII Div 1 | 2017 [Edition and Addenda, if applicable (date)] | (Code Case number) | [Special Service per UG-120(d)]
6. Shell (a) Number of course (s): 1 (b) Overall Length: 10'-0"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff	Temp.	Time
1	48"OD	10'-0"	SA 516-70	.375"		1	Full						

Body Flanges on Shell

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, thk)	Bolting: Washer Material

7 Heads: (a) (Material spec, number, grade or type) (H.T. - time and temp) (b) (Material spec, number, grade or type) (H.T - time and temp)

	Location (Top, Bottom, Ends)	Thickness: Min.	Thickness: Corr	Radius: Crown	Radius: Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispheric al Radius	Flat Diameter	Side to Pressure: Convex	Side to Pressure: Concave	Category A: Type	Category A: Full, Spot, None	Category A: Eff
(a)														
(b)														

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, thk)	Bolting: Washer Material
(a)												
(b)												

8. MAWP (Internal) (External) at max temp. (Internal) (External) Min. design metal temp. at
9. Impact Test: No. (Indicate yes or no and the component(s) impact tested) at test temperature of
10. Hydro~~, pneu., or comb~~. test pressure. PSI Proof Test
11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc)	No	Diameter or Size	Type	Material: Nozzle	Material: Flange	Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	Attachment Details: Nozzle	Attachment Details: Flange	Location (Insp. open.)

12. Identification of part (s)

Name of Part	Quantity	Line No	Mfr's Identification No.	Mfr's Drawing No.	CRN	National Board No.	Year Built

13. Support: Skirt (Yes or no) Lugs (Number) Legs (Number) Other (Describe) Attached (Where and how)
14. Remarks: MCSI PO# 181656058A Desing By Others Formed In Accordance With UG 79, UG 80 and UCS 79
No Hydro Preformed

FORM U-2A

Manufactured by Bise Welding & fabricating, Inc. 1900 De Soto Houston, Texas 77091

Manufacturer's Serial No. 7967 M CRN _____ National Board No. _____

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction and workmanship of this pressure vessel part conform to the ASME Boiler and pressure Vessel Code, Section VIII, Division 1.

"U" Certificate of Authorization Number 30,911 Expires January 30, 2020

Date 5-1-18 Name Bise Welding & fabricating (Manufacturer) Signed _____ (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company of Lynn, MA have inspected the pressure vessel part described in this Manufacturer's Data Report on 5-1-18 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5-1-18 Signed _____ (Authorized Inspector) Commissions NB 14513 AI (National Board Authorized Inspector Commission number)

(07/17)