

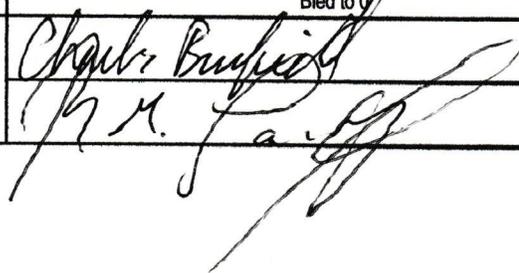
CAIN'S PIPELINE & INDUSTRIAL SERVICES, LLC
P.O. Box 297 (7663 First Street)
Addis, Louisiana 70710
(225) 687-7080 / Fax (225) 687-7083

JOB INFORMATION			
COMPANY NAME:	Shell	TEST DATE:	4/8/2019
CONTRACTOR NAME:	Cain's	START TIME:	12:15 PM END TIME: 1:15 PM
LOCATION:	Sugarland	CAIN'S JOB #	SPL-19-001
JOB NAME:	Sugarland Dock 1 42"		
DESCRIPTION OF PIPE:	42" #150		

TEST EQUIPMENT			
	MANUFACTURER	CALIBRATION DATE	SERIAL #
DEADWEIGHT TESTER	Chandler	1/10/2019	13341
PRESSURE	Reynolds Equipment	3/26/2019	H-972-W-DB
AMBIENT TEMPERATURE RECORDER	OGASCO	12/3/2018	L00141
PIPE TEMPERATURE RECORDER	ITT Barton	1/3/2019	202E-353643
GROUND TEMPERATURE RECORDER 1			
GROUND TEMPERATURE RECORDER 2			
GAUGE			
GAUGE			

PIPE INFORMATION		TEST INFORMATION			
SIZE:	42"	TEST PRESSURE			
WALL THICKNESS:		MIN:	225	MAX:	230
GRADE:		ACTUAL TEST PRESSURE			
LENGTH:	Approx 1 Mile	MIN:	226	MAX:	227

TIME	DEADWEIGHT READINGS	TEMPERATURE			REMARKS
		PIPE	AMBIENT	GROUND	
9:42 AM	0				Start Pressure Up
10:00 AM	12				Stop Check For Leaks
10:05 AM	12				Start Pressure Up
10:12 AM	24				Stop Check For Leaks
10:16 AM	24				Start Pressure Up
10:49 AM	59				Stop Check For Leaks
10:56 AM	59				Start Pressure Up
11:21 AM	165				Stop Check For Leaks
11:26 AM	164				Start Pressure Up
11:44 AM	229				Stop Check For Leaks
12:00 PM	228				
12:15 PM	227	73	79		Start Test
12:30 PM	227	73	80		
12:45 PM	227	73	80		
1:00 PM	226	73	79		Cloudy
1:15 PM	226	73	80		End Test
1:30 PM	226-0	73	80		Bled to 0

Cain's Rep	
Owner Rep	

Company: Shell
Job Name: Sugarland Dock 1 42"
Test Date: 4/8/2019
Start Time: 12:15 PM End Time: 1:15 PM

Picture Discription:

Test Tree & Gauge



Picture Discription:

Temperature Recorder



7323 Tom Dr., Baton Rouge, LA 70806
1600 Watterberg Way, Alexandria, LA 71303
4555 South Hwy 45, Mattoon, IL 61938

JM Test systems

Test Equipment Made Easy

CALIBRATION-SALES-RENTAL-ELECTRICAL SAFETY

1020 N. Texas Avenue, Odessa, TX 79761
738 S. Main Street, Clute, TX 77531
3947 Lincoln Ave., Ste. B, Groves, TX 77619

This work was performed by Baton Rouge location, Lab division.

CERTIFICATE OF CALIBRATION

Manuf. **CHANDLER ENGINEERING** PO# **W/OPO**
Model **23-1** Submitted By
Cain's PLC & Indust Svc
Mfg Serial **13341** **7663 First Street**
Cust ID# **N/A** **Addis, LA 70710**
Cust Serial **N/A**
Desc. **HYDRAULIC D/W TESTER**

JM TEST SYSTEMS certifies this instrument has been repaired, if necessary, and calibrated to published manufacturer specifications using standards traceable to NIST, to consensus standards, to ratio methods, or to accepted values of natural physical constants. This certificate applies only to the item listed above. JM TEST SYSTEMS' quality control system meets the requirements of ANSI/NCCL Z540-1, ISO 9001, ISO 10012 and ISO 17025.

Condition In: **In Tolerance**
Condition Out: **No Adjustments**
Action: **Checked accessories and performed operation/leak test. Piston drop was tested for five minutes. Cleaned, calibrated and certified.**
Procedure: **JM 386 2.0 Rev. 10/20/2016**

The following standards were used in the calibration:

Manufacturer/Model	Description	Std #	Date Due
AMETEK / 0.02 SQ. IN	PISTON/CYL. ASSEMBLY	545.3	05/31/2019
AMETEK / TYPE T BRASS	WEIGHT SET	545.5	06/30/2019
OHAUS / 80850112	100gX1mg WTSET ASTMCL6	1316	02/28/2019
METTLER TOLEDO / AE-240-S	ANALYTICAL BALANCE	1154	11/30/2019
OHAUS / EX1103	DIGITAL SCALE	1840	09/30/2019
OHAUS / EP2102C	SC-2100g AT 1mg	1189	08/31/2019
OHAUS / OBE12001	DIGITAL BALANCE	438	11/30/2019

This report shall not be reproduced, except in full, without the written approval of JM TEST SYSTEMS, Inc.

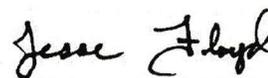
Certificate/traceability number: **3062.00-290009-008** Date of Report: **01/10/2019** WO#: **290009-008**

Calibration Date: **01/10/2019**

Due Recalibration Date: **07/10/2019**

Lab Environment: TEMP: **21°C**

HUMIDITY: **25%RH**



Technician **Jesse J Floyd**



B.R. (800) 353-3411 • Alex. (318) 443-5589 • Odessa (866) 631-9091 • Clute (800) 762-1998 • Mattoon (217) 235-5556 • Groves (800) 353-3411

www.JMTestSystems.com

CALIBRATION REPORT

Date: 1/10/2019
Work Order: 290009-008
Type of Inspection: As-Found/As-Left

JM TEST SYSTEMS, INC
 7323 Tom Dr.
 Baton Rouge, LA

Customer: Cain's PLC & Indust Svc
Location: Addis, LA

Ph: 225-925-2029
 Fax: 225-927-0036

Manufacturer: CHANDLER ENGINEERING
Model: 23-1
Serial Number: 13341
Piston Number: N/A
Mass Number: 16

Accuracy %	0.1		Air Buoyancy Correction	0.9998595
Reference Gravity	980.665		Thermal Expansion Coefficient	2.59E-05
Effective Area (23°C)	0.02764463	in ²	Unit Conversion	0.0010197
Uncertainty A _o	4.15E-06	in ²	Mass Conversion	0.0022046
Distortion Coefficient	6.88813E-08			

Weight Number	Mass Value g	Mass Uncertainty g	Nominal Pressure psi	True Pressure psi	Percent Error	Weight Status
P/C	62.7663	0.010	5	5.0048	0.096	Pass
5	62.6886	0.010	5	4.9986	-0.027	Pass
10	125.3631	0.006	10	9.9961	-0.039	Pass
A	250.7790	0.013	20	19.9965	-0.018	Pass
B	250.7340	0.013	20	19.9929	-0.036	Pass
C	250.8220	0.013	20	19.9999	-0.001	Pass
D	250.6960	0.013	20	19.9898	-0.051	Pass
A	1254.0000	0.063	100	99.9901	-0.010	Pass
B	1254.0000	0.063	100	99.9901	-0.010	Pass
C	1254.0900	0.063	100	99.9973	-0.003	Pass
D	1254.2600	0.063	100	100.0108	0.011	Pass
A	6272.0000	0.627	500	500.0962	0.019	Pass
B	6271.9000	0.627	500	500.0882	0.018	Pass
C	6271.3000	0.627	500	500.0404	0.008	Pass
A	25.0756	0.010	2	1.9995	-0.027	Pass
B	25.0631	0.010	2	1.9985	-0.077	Pass
1	12.5372	0.010	1	0.9997	-0.032	Pass

7323 Tom Dr., Baton Rouge, LA 70806
1600 Watterberg Way, Alexandria, LA 71303
4555 South Hwy 45, Mattoon, IL 61938

JM Test systems

Test Equipment Made Easy
CALIBRATION-SALES-RENTAL-ELECTRICAL SAFETY

1020 N. Texas Avenue, Odessa, TX 79761
738 S. Main Street, Clute, TX 77531
3947 Lincoln Ave., Ste. B, Groves, TX 77619

This work was performed by Baton Rouge location, ITL division.

CERTIFICATE OF CALIBRATION

Manuf. **REYNOLDS EQUIPMENT** PO# **W/OPO**
Model **500 PSI/3000 PSI** Submitted By
Cain's PLC & Indust Svc
Mfg Serial **H-972-W-DB** **7663 First Street**
Cust ID# **N/A** **Addis, LA 70710**
Cust Serial **N/A**
Desc. **DUAL PRESSURE RECORDER**

JM TEST SYSTEMS certifies this instrument has been repaired, if necessary, and calibrated to published manufacturer specifications using standards traceable to NIST, to consensus standards, to ratio methods, or to accepted values of natural physical constants. This certificate applies only to the item listed above. JM TEST SYSTEMS' quality control system meets the requirements of ANSI/NCSL Z540-1, ISO 9001, ISO 10012 and ISO 17025.

Condition In: **In Tolerance**
Condition Out: **No Adjustments**
Action: **Checked accessories. Replaced battery(ies) at < 1.47V. Cleaned, calibrated and certified.**
Procedure: **JM385 Procedure Rev. 08/28/2017**

The following standards were used in the calibration:

Manufacturer/Model	Description	Std #	Date Due
AMETEK / 10-5525	HYDRAULIC D/W TESTER	155	06/30/2019

This report shall not be reproduced, except in full, without the written approval of JM TEST SYSTEMS, Inc.

Certificate/traceability number: **3062.00-298282-003** Date of Report: **03/28/2019** WO#: **298282-003**

Calibration Date: **03/26/2019**

Due Recalibration Date: **09/26/2019**

Lab Environment: TEMP: **21°C**
HUMIDITY: **59%RH**

Kyle Parsons

Technician **Kyle W. Parsons**



B.R. (800) 353-3411 • Alex. (318) 443-5589 • Odessa (866) 631-9091 • Clute (800) 762-1998 • Mattoon (217) 235-5556 • Groves (800) 353-3411

www.JMTestSystems.com

JM Test Systems, Inc.

Calibration Data Sheet

Work Order: 298282-003

Manufacturer: REYNOLDS EQUIPMENT

Model: 500 PSI/3000 PSI

Description: DUAL PRESSURE RECORDER

Mfr S/N: H-972-W-DB

Cust ID: N/A

Cust S/N: N/A

Function / Range		Out	Measured Value		Acceptance Limits	
Test Description	Nominal Value	*	AS FOUND	AS LEFT	LOW	HIGH
TEST RESULT			Pass	Pass		
I/A/W JM385 Procedure:						
Dual Pressure Chart Recorder					± 0.25% of FS	
Pressure Accuracy:						
Pressure Range: 0-500 psi						
500 psi	0 psi		0	N/A	-1 psi	1 psi
	250 psi		249	N/A	249 psi	251 psi
	500 psi		499	N/A	499 psi	501 psi
	250 psi		249	N/A	249 psi	251 psi
	0 psi		0	N/A	-1 psi	1 psi
Pressure Range: 0-3000 psi						
3000 psi	0 psi		0	N/A	-8 psi	8 psi
	1500 psi		1492	N/A	1492 psi	1508 psi
	3000 psi		2992	N/A	2992 psi	3008 psi
	1500 psi		1492	N/A	1492 psi	1508 psi
	0 psi		0	N/A	-8 psi	8 psi
Operational Check Only:					Pass / Fail	
Chart Drive Time			PASS	N/A	Pass	Fail
Pen Arc Coincidence			PASS	N/A	Pass	Fail

7323 Tom Dr., Baton Rouge, LA 70806
1600 Watterberg Way, Alexandria, LA 71303
4555 South Hwy 45, Mattoon, IL 61938

JM Test systems

Test Equipment Made Easy

CALIBRATION-SALES-RENTAL-ELECTRICAL SAFETY

1020 N. Texas Avenue, Odessa, TX 79761
738 S. Main Street, Clute, TX 77531
3947 Lincoln Ave., Ste. B, Groves, TX 77619

This work was performed by Baton Rouge location, ITL division.

CERTIFICATE OF CALIBRATION

Manuf. **ITT BARTON** PO# **W/OPO**
Model **1500 PSI/150°F** Submitted By
Cain's PLC & Indust Svc
Mfg Serial **202E-353643** **7663 First Street**
Cust ID# **N/A** **Addis, LA 70710**
Cust Serial **N/A**
Desc. **PRESSURE/TEMPERATURE RECORDER**

JM TEST SYSTEMS certifies this instrument has been repaired, if necessary, and calibrated to published manufacturer specifications using standards traceable to NIST, to consensus standards, to ratio methods, or to accepted values of natural physical constants. This certificate applies only to the item listed above. JM TEST SYSTEMS' quality control system meets the requirements of ANSI/NCSL Z540-1, ISO 9001, ISO 10012 and ISO 17025.

Condition In: **In Tolerance**
Condition Out: **No Adjustments**
Action: **Checked accessory. Replaced battery(ies) at < 1.47V. Cleaned, calibrated and certified.**
Procedure: **JM385 Procedure Rev. 08/28/2017**

The following standards were used in the calibration:

Manufacturer/Model	Description	Std #	Date Due
AMETEK / 10-5525	HYDRAULIC D/W TESTER	155	06/30/2019
THERMOPROBE / TL-1A	DIGITAL THERMOMETER	1362	07/31/2019
THERMOPROBE / TL1-A	DIGITAL THERMOMETER	1870	07/31/2019

This report shall not be reproduced, except in full, without the written approval of JM TEST SYSTEMS, Inc.

Certificate/traceability number: **3062.00-290009-002** Date of Report: **01/03/2019** WO#: **290009-002**

Calibration Date: **01/03/2019**

Due Recalibration Date: **07/03/2019**

Lab Environment: TEMP: **19°C**

HUMIDITY: **69%RH**

Kyle Parsons

Technician **Kyle W. Parsons**



JM Test Systems, Inc.
 Manufacturer: ITT BARTON
 Description: PRESSURE/TEMPERATURE RECORDER
 Mfr S/N: 202E-353643

Calibration Data Sheet
 Model: 1500 PSI/150°F

Work Order: 290009-002

Cust ID: N/A

Cust S/N: N/A

Function / Range		Out	Measured Value		Acceptance Limits	
Test Description	Nominal Value	*	AS FOUND	AS LEFT	LOW	HIGH
TEST RESULT			Pass	Pass		
I/A/W JM385 Procedure:						
Pressure/Temperature Chart Recorder					± 1% of FS	
Pressure Accuracy:						
Pressure Range: 0-1500 psi						
1500 psi	0 psi		0	N/A	-15 psi	15 psi
	750 psi		760	N/A	735 psi	765 psi
	1500 psi		1510	N/A	1485 psi	1515 psi
	750 psi		760	N/A	735 psi	765 psi
	0 psi		0	N/A	-15 psi	15 psi
Temperature Accuracy: 150°F						
150 °F	0 °F		0	N/A	-2 °F	2 °F
	75 °F		76	N/A	74 °F	77 °F
	150 °F		150	N/A	149 °F	152 °F
Operational Check Only:					Pass / Fail	
Chart Drive Time			PASS	N/A	Pass	Fail
Pen Arc Coincidence			PASS	N/A	Pass	Fail

7323 Tom Dr., Baton Rouge, LA 70806
1600 Watterberg Way, Alexandria, LA 71303
4555 South Hwy 45, Mattoon, IL 61938

JM Test systems

Test Equipment Made Easy
CALIBRATION-SALES-RENTAL-ELECTRICAL SAFETY

1020 N. Texas Avenue, Odessa, TX 79761
738 S. Main Street, Clute, TX 77531
3947 Lincoln Ave., Ste. B, Groves, TX 77619

This work was performed by Baton Rouge location, ITL division.

CERTIFICATE OF CALIBRATION

Manuf. **OGASCO**
Model **3000 PSI/150°F**

PO# **21447**
Submitted By
Cain's PLC & Indust Svc
7663 First Street
Addis, LA 70710

Mfg Serial **L00141**
Cust ID# **N/A**
Cust Serial **N/A**

Desc. **PRESSURE/TEMPERATURE RECORDER**

JM TEST SYSTEMS certifies this instrument has been repaired, if necessary, and calibrated to published manufacturer specifications using standards traceable to NIST, to consensus standards, to ratio methods, or to accepted values of natural physical constants. This certificate applies only to the item listed above. JM TEST SYSTEMS' quality control system meets the requirements of ANSI/NCSL Z540-1, ISO 9001, ISO 10012 and ISO 17025.

Condition In: **Out of Tolerance**
Condition Out: **Adjusted**
Action: **Replaced damaged temperature element. Replaced battery(ies) at < 1.47V. Cleaned, calibrated and certified.**
Procedure: **JM385 Procedure Rev. 08/28/2017**

The following standards were used in the calibration:

Manufacturer/Model	Description	Std #	Date Due
AMETEK / 10-5525	HYDRAULIC D/W TESTER	155	06/30/2019
THERMOPROBE / TL-1A	DIGITAL THERMOMETER	1362	07/31/2019
THERMOPROBE / TL1-A	DIGITAL THERMOMETER	1870	07/31/2019

This report shall not be reproduced, except in full, without the written approval of JM TEST SYSTEMS, Inc.

Certificate/traceability number: **3062.00-285681-008**

Date of Report: **12/04/2018**

WO#: **285681-008**

Calibration Date: **12/03/2018**

Due Recalibration Date: **06/03/2019**

Lab Environment: TEMP: **19°C**

HUMIDITY: **48%RH**

Kyle Parsons

Technician **Kyle W. Parsons**



B.R. (800) 353-3411 • Alex. (318) 443-5589 • Odessa (866) 631-9091 • Clute (800) 762-1998 • Mattoon (217) 235-5556 • Groves (800) 353-3411

www.JMTestSystems.com

JM Test Systems, Inc.

Calibration Data Sheet

Work Order: 285681-008

Manufacturer: OGASCO

Model: 3000 PSI/150°F

Description: PRESSURE/TEMPERATURE RECORDER

Mfr S/N: L00141

Cust ID: N/A

Cust S/N: N/A

Function / Range		Out	Measured Value		Acceptance Limits	
Test Description	Nominal Value	*	AS FOUND	AS LEFT	LOW	HIGH
TEST RESULT			Fail	Pass		
I/A/W JM385 Procedure:						
Pressure/Temperature Chart Recorder					± 1% of FS	
Pressure Accuracy:						
Pressure Range: 0-3000 psi						
3000 psi	0 psi		0	N/A	-30 psi	30 psi
	1500 psi		1500	N/A	1470 psi	1530 psi
	3000 psi		2975	N/A	2970 psi	3030 psi
	1500 psi		1500	N/A	1470 psi	1530 psi
	0 psi		0	N/A	-30 psi	30 psi
Temperature Accuracy: 150°F						
150 °F	0 °F		0	0	-2 °F	2 °F
	75 °F	*	77	76	74 °F	77 °F
	150 °F		149	149	149 °F	152 °F
Operational Check Only:					Pass / Fail	
Chart Drive Time			PASS	N/A	Pass	Fail
Pen Arc Coincidence			PASS	N/A	Pass	Fail

MIDNIGHT

11

NOON

Graphic Controls LLC

CHART NO. MC M-500

METER 972-V-DB

CHART PUT ON 4-8-19 M

TAKEN OFF 4-8-19 M

LOCATION

REMARKS Pressure

Pressure Recorder			
PROJECT:	Sugarland Dock 1 42"		
	SPL-19-001		
START TIME	12:15 PM	DATE	4-8-19
END TIME	1:15 PM	DATE	4-8-19
RECORDER MANUF.	Reynolds	S/N	H-972-W-DB
DEADWT. MANUF.	Chandler	S/N	13341
LINE SIZE	42"	LENGTH	APP 1 Mile
TEST TECH	<i>Charles Bonfield</i> (SIGN)		
COMPANY REP.	<i>[Signature]</i> (SIGN)		
CONTRACTOR REP.	<i>[Signature]</i> (SIGN)		

PRINTED IN U.S.A.

Graphic Controls LLC

CHART NO. MC MT-150F

METER 353643

TAKEN OFF 4-8-19

CHART PUT ON 4-8-19

LOCATION

REMARKS Pipe

PROJECT:	Pipe Temperature Recorder	DATE	4-8-19
START TIME	Sugarland Dock 1 42"	DATE	4-8-19
END TIME	SPL-19-001	S/N	202E-353643
RECORDER MANUF.	12:15 PM	S/N	13341
DEADWT. MANUF.	ITT Barton	LENGTH	APP 1 Mile
LINE SIZE	Chandler	(SIGN)	(SIGN)
TEST TECH	42"	(SIGN)	(SIGN)
COMPANY REP.	<i>Charles Brantley</i>	(SIGN)	(SIGN)
CONTRACTOR REP.	<i>[Signature]</i>	(SIGN)	(SIGN)

Graphic Controls LLC

CHART NO. MC MT-150F

METER L00141

CHART PUT ON
4-8-19 M

TAKEN OFF
4-8-19 M

LOCATION _____
REMARKS Ambient

PROJECT: Ambient Temperature Recorder
Sugarland Dock 1 42"

START TIME	12:15 PM	DATE	4-8-19
END TIME	1:15 PM	DATE	4-8-19
RECORDER MANUF.	OGASCO	S/N	L00141
DEADWT. MANUF.	Chandler	S/N	13341
LINE SIZE	42"	LENGTH	APP 1 Mile
TEST TECH	<u>Chad Bumpfield</u>		(SIGN)
COMPANY REP.	<u>Ray</u>		(SIGN)
CONTRACTOR REP.			(SIGN)

ISNetworld OQ Report



Shell Trading & Supply Americas/US Pipeline

Project Site: Gulf of Mexico (GOM) - Region (JS-424)
Report Date: 12/21/2018 9:11 AM (Central Standard Time)
Report Run By: BRENT MESSINA
Form ID: 115235-OQ-5B605C9F



BRUMFIELD, CHARLES
Cain's Pipeline & Industrial Services, LLC (ISN-04700393)

Task	Qualification Method	Type	Evaluation Date	Expiration Date	Class
041.00 - Conduct Pressure Tests <i>(Span of Control: 1 to 3)</i>	NCCER - CT41_0-17 - Conduct Pressure Test	W	09/26/2018	09/26/2021	V
041.00 - Conduct Pressure Tests	NCCER - AOCFG-17 - Abnormal Operating Conditions Field & Gas	W	09/26/2018	09/26/2021	V
041.00 - Conduct Pressure Tests	NCCER - CT41_0-17 - Conduct Pressure Test	P	09/19/2018	09/19/2021	V
AOC - Recognize and react to general Abnormal Operating Conditions (Required for Welders)	NCCER - AOCFG-17 - Abnormal Operating Conditions Field & Gas	W	09/26/2018	09/26/2021	V

Prepared By: BRENT MESSINA

Notice: Evaluation and Expiration dates are in MM/DD/YYYY format

<http://www.isnetworld.com/>

CAIN'S PIPELINE & INDUSTRIAL SERVICES, LLC
 P.O. Box 297 (7663 First Street)
 Addis, Louisiana 70710
 (225) 687-7080 / Fax (225) 687-7083

Chain Of Custody Form

	DATE:	4/8/2019
COMPANY NAME:	Shell Pipeline	
CONTRACTOR NAME:	Cain's Pipeline	
LOCATION:	Shell Sugarland	
JOB NAME:	Sugarland Dock 1 42"	
JOB NUMBER:	SPL-19-001	

Item:	Description:
Test Log	Log with Test Info, Pressures and Temp. Readings
Charts	Pressure, Ambient Temp and Pipe Temp Charts
Certs	Deadweight, Pressure Recorder & 2 Temp Recorder Certs

Relinquished by:	Date: 4-8-19	Received by:	Date:
Print Name: Charles Brownfield		Print Name: Roy G. Laddry	
Signature: <i>Charles Brownfield</i>		Signature: <i>Roy G. Laddry</i>	

Relinquished by:	Date:	Received by:	Date:
Print Name:		Print Name:	
Signature:		Signature:	

Relinquished by:	Date:	Received by:	Date:
Print Name:		Print Name:	
Signature:		Signature:	

Pressure Test Certification Data

Shell Pipeline Company LP

LOCATION DATA

REGION GOM SYSTEM NAME (RAM/SAP Level 1) Sugar land Dock # 2 42"

FACILITY NAME (RAM/SAP Level 2) Project / ES Number N/A W.O. / P. O. Number 10202057

Section/ Facility Tested FROM SURVEY STATION TO SURVEY STATION OR DESCRIPTION (Attach sketch/drawing if necessary to fully describe facility tested and showing location of various sizes, grades, etc. of pipe) From End blind near river rd to End blind in yard near 36" Valve.

REASON FOR TEST (New Const., IMP Baseline Assessment, IMP Periodic Assessment, Increase MOP, etc.) DOE Required (Tested segment that was pigged from river Rd to Terminal)

PIPE TESTED

	PIPE DATA			DATE OF CONSTRUCTION
	FIRST	SECOND	THIRD	
Diameter X Wall Thickness (in)	<u>.375</u>	<u>42"</u>		<u>1980</u>
Type of (Seamless, ERW, etc.)	<u>seamless</u>	<u>River Rd. to</u>		DATE OF PRESSURE TEST <u>4-8-19</u>
Spec. Min. Yield Strength (PSI)	<u>SLG RB</u>	<u>Terminal</u>		ANSI VALVES <u>150#</u> RATING FLANGES <u>150#</u>

DATA CHECKLIST

Test Medium (include specific gravity if other than water) Water

Tested by: Cain's

Average Temperature of Testing Medium 75°

List Principal Test Equipment (Pump, Test, Recorder, etc.) Hydraulic D/W Tester, Digital Thermometer,

TEST PRESSURES

	Pressure	Location	Elevation
Minimum Pressure at Test Location	<u>225psi</u>	<u>River Rd to Terminal</u>	<u>_____</u>
Minimum Pressure at Lowest Elevation Point in the Test Section	<u>_____</u>	<u>_____</u>	<u>_____</u>
Minimum Pressure at Highest Elevation Point in the Test Section	<u>_____</u>	<u>_____</u>	<u>_____</u>

TESTING DURATION

Start Time 12:15 pm AM PM Stop Time 1:15 pm AM PM Duration 1 hr. Hours

Are Pressures Continuous? Yes No (If not, include explanation) N/A

Spike Test Performed? Yes No (If so, record Spike Test Pressure and Duration) N/A

SIGNED

Operator's Representative Responsible for Test [Signature] Date: 4-8-19

PURPOSE: Record pressure test information. Use this or equivalent form.

- ATTACHMENTS REQUIRED FOR EACH TEST
1. Dead Weight Tester Data
 2. Recording Gauge Charts
 3. Diagram, Drawing or Sketch
 4. Records of Failures (PL-318A)
 5. Record of Test Data PL-318A
 6. Recorders and/or Dead Weight Tester Calibration Certificate
 7. Elevation Profile of Line Indicating Test Site (Required if Elevation Difference Greater than 100')

DISTRIBUTION (With Attachments) Original - Integrity and Regulatory Services 1st Copy - Project/Maintenance Files Additional Copies - Local Procedures RETENTION Life of Facility

Pressure Test Certification Data

Shell Pipeline Company LP

INSTRUCTIONS FOR FILLING OUT PRESSURE TEST DATA FORM (PL-318)

- I. **Section/Facility Tested** – The line section/facility being tested should be described by survey stations or facility description. Additional information should be provided on an attached sketch to fully describe the section/facility tested including boundaries of test, whether a pipeline section, highway crossing, river crossing, pump station manifold, pipe pre-tested for future use, pipe above or below ground, etc.
- II. **Description of Pipe Tested** – Provide the indicated data for all pipe tested during this test. If more than one kind of pipe is tested, show the different pipe descriptions in the column labeled "FIRST", "SECOND" and "THIRD", and show the location of each different size, type or grade of pipe on the attached sketch. If only one kind of pipe is tested leave columns labeled "SECOND" and "THIRD" blank. If more than three kinds of pipe are tested, show all on an attached sketch.
- III. **Data Checklist**
 - Test Medium** - Medium used such as water, crude oil, etc. Include specific gravity of medium if other than water.
 - Tested By** - Name of company performing test.
 - Average Temperature of Test Medium** - Average testing fluid temperatures should be recorded at both ends of test section to facilitate pressure calculations based on temperature differentials.
 - Principal Test Equipment and Comments** - A list of the principal test equipment, i.e., pump, recorder, etc. Additional information should be provided on form PL-318A.
- IV. **Test Pressure**
 - Minimum Pressure at Test Location** - Minimum pressure observed during test should be recorded along with test location and elevation. For liquid line, if pressure is lowered after initial four hours, both initial minimum test pressure and final minimum test pressure shall be shown.
 - Pressure at Lowest Elevation Point in Test Section** - Where elevation differences exceed 100 feet, the minimum pressure at the lowest elevation point in the section tested should be recorded along with the elevation and the location of that point. The location should be made from established geodetic surveys on alignments sheets.
 - Pressure at Highest Elevation Point in Test Section** - Where elevation differences exceed 100 feet, the minimum pressure at the highest elevation point in the section tested should be recorded along with the elevation and the location of that point. The location should be made from established geodetic surveys on alignment sheets.
- V. **Test Duration** - Must record test pressure continuously for the entire test: a minimum of 4 hours for liquid piping exposed to view and a minimum of 8 hours for other liquid piping and for gas lines. Starting and completion times and the time of any pressure reduction on liquid lines are to be recorded.
 - Are Test Pressures Continuous** - If the test pressures fluctuate, explain briefly the cause, whether it be faulty equipment, gauges, or line failure.
 - Spike Test** - If a spike test was performed, indicate spike test pressure and duration.
- VI. **Signature of Operator's Representative** responsible for test and date.
- VII. **Attachments Required For Each Test**
 - Dead Weight Tester Data** – Dead weight tester data forms should be filled out for each gauge calibrated.
 - Recording Gauge Charts** – Attach actual charts as recorded, showing pipeline description and signature of operator's responsible person.
 - Diagram, Drawing or Sketch (8½" x 11")** – That specifically and clearly shows the extent of the pipe or facility tested. One way to indicate the extent of the test is by using a piping drawing and drawing a "cloud" around the exact piping that was tested. Write a note on the "cloud" identifying it was the tested portion. For mainlines, show stationing.
 - Records Of Failures** during test and the reason for the failures (Remarks on PL-318A).
 - Pressure Test Report** Form PL-318A or equivalent.
 - Calibration Certificates** – Copies of current calibration certificates for the pressure recorder and/or deadweight test.
 - Elevation Profile of Line Indicating Test Site** – Attach an elevation profile and include the exact position of test sites used (if elevation difference greater than 100 feet).