

18796

OCT 30 1998

In Reply Refer To: MS 5232

Mr. G. W. Sanders
Shell Pipe Line Corporation
Post Office Box 2648
Houston, Texas 77252-2648

Dear Mr. Sanders:

In accordance with 30 CFR 250.1008(b), your letter dated September 8, 1998, transmitted a pipeline construction report for the following right-of-way pipeline:

<u>Pipeline Segment No.</u>	<u>Size (inches)</u>	<u>Length (feet)</u>	<u>Service</u>	<u>From</u>	<u>To</u>
11471 (Right-of-Way OCS-G 18796)	14	159,414	Oil	FLANGE Block 205 Green Canyon Area	Platform B Block 301 South Timbalier Area Lease OCS-G 5911 Lease OCS-G 3594

The data provided in the report, including the following test information, establishes the assigned maximum allowable operating pressure (MAOP) for the pipeline:

<u>Test Pressure (psig)</u>	<u>Duration (hours)</u>	<u>MAOP (psig)</u>	<u>MAOP Determination</u>
2,865	8	2,170	Valve, flange rating

The high- and low-pressure sensors shall be set, respectively, no higher than 15 percent above and below the normal operating range. However, the high pilot shall not be set higher than the MAOP of the pipeline.

You shall notify Shell Deepwater Production Inc., operator of Lease OCS-G 5905, that you deviated from the approved right-of-way in Green Canyon Block 117, and Chevron U.S.A. Inc., operator of Lease OCS-G 5909, that you deviated from the approved right-of-way in Green Canyon Block 161, during pipeline construction. A return-receipt card or letter from these operators evidencing proof of notice must be submitted to this office within 60 days of receipt hereof.

The total length of the "as-built" pipeline right-of-way is 30.19 miles.

Sincerely,

(orig. sgd.) A. P. Alvarado

Donald C. Howard
Regional Supervisor
Field Operations

bcc: 1502-01 Segment No. 11471, ROW OCS-G 18796 (MS 5232)
1502-01 ROW OCS-G 18796 (Microfilm) (MS 5033)
MS 5232 Carto

FPatton:amm:9/30/98:Shell.471

Two Shell Plaza
P.O. Box 2648
Houston, TX 77252-2648

September 8, 1998

VIA AIRBORNE EXPRESS

Mr. Frank Patton, Jr. (MS 5232)
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Dear Mr. Patton:

**OFFSHORE LOUISIANA
GENESIS 14-INCH OIL PIPE LINE
GREEN CANYON BLOCK 205 "SPAR"
TO SOUTH TIMBALIER BLOCK 301 "B"
ROW: OCS-G18796, SEGMENT NO. 11471; JOB NO. 116000
"AS-BUILT" DATA**

In accordance with the captioned right-of-way permit, I enclose three copies of the as-built construction drawings, two copies of the hydrostatic pressure test data, and a 3½-inch diskette containing as-built location data in a fixed format ASC file, all for your review.

In addition, Attachment "A" to this letter describes the reasons for a 750-foot pipeline deviation in Green Canyon Block 117. We hereby respectfully request your approval of this deviation.

If you need additional information, please contact me at (713)241-6586.

Very truly yours,



G.W. Sanders
Sr. Land Agent

AJB/RMS

Attachment



ATTACHMENT "A"

Following issuance of the captioned right-of-way permit additional seafloor information was gathered by a Remote Operated Vehicle (ROV) in the approach area to Green Canyon Block 205 Wellheads. The purpose of this ROV survey was to ensure that the seafloor topography in the pipeline end termination sled target box area was suitable for jumper installation and consistent with our design premise. Pursuant to the ROV survey and analysis of the data, it was recommended that the pipeline end termination sled target box be moved.

In light of the above, engineering re-evaluated the pipeline alignment, taking into account the pipe installation parameters in conjunction with the local topography and consistency of the seabed. This was done to ensure lateral stability of the pipeline, through the final route curve, in approach to the Green Canyon Block 205 Wellheads. As a result, it was recommended that lay radius, for the turn in question, be increased locally to accommodate the level of seabed tension anticipated through this curve.

Consequently the as-built pipeline is lying outside and approximately 750 feet to the East of the permitted right-of-way in Green Canyon Block 117. Prior to installation of the captioned pipeline, and as part of the pre-installation evaluation to increase the lay radius, the following factors were considered:

1. The project route hazard survey, conducted in support of pipeline planning / permitting, adequately covers the area of the deviation from the permitted ROW.
2. Results of review of the above survey data show no indications of the presence of any feature of archeological significance;
3. Results of the review of the survey data show no indications of any geologic or topographical feature that would pose any threat to the integrity of the pipeline through installation or operation.
4. Results of the review of the survey data show no indications of any chemo-synthetic life.

OCS-G-18196

SU-11872

ATTACHMENT 7

SHELL JOB NO.	►	AFE-116000
ES NO.	►	

TEST SECTION LOCATION

PIPELINE GENESIS 14" PIPELINE	LOCATION CODE N/A	DIVISION GULF OF MEXICO
SECTION TESTED ► FROM SURVEY STATION ST 301-B	TO SURVEY STATION GC 205	PRESSURE RECORDER LOCATION PLUS 45' EL. ON ST 301-B PLATFORM

LINE HISTORY

DATE CONSTRUCTED	OUTSIDE DIAMETER - IN.	TYPE (Seamless, ERW, etc.)		
SPEC. MIN. YIELD - PSI.	WALL THICKNESS - IN	ANSI RATING ►	VALVES	FLANGES

DATA CHECK LIST**DATA / RESULTS**

TEST MEDIUM	SEA WATER			
TESTED BY	C.S.I.			
TEST PRESSURE - MINIMUM *	2865 PSI			
LIST PRINCIPAL TEST EQUIPMENT	DWT, 2 TEMP REC., PRESS. REC., PUMP.			
AVERAGE TEMPERATURE OF TESTING MEDIUM	66.7 F			
PRESSURE AT LOWEST ELEVATION POINT IN THE TEST SECTION, INCLUDING ELEVATION AND LOCATION. *	2865 PSI			
PRESSURE AT HIGHEST ELEVATION POINT IN THE TEST SECTION, INCLUDING ELEVATION AND LOCATION. *	2865 PSI			
TEST DURATION (Including time started and completed)	DURATION ►	8	HOURS	
	STARTED ►	DATE: 0200/3-16-98 AM	X	PM
	COMPLETED ►	DATE: 1015/3-16-98 AM	X	PM
ARE PRESSURES CONTINUOUS? If not, explain.	YES			
DESCRIPTION OF FACILITY TESTED. (River, Pump Sta., Buried Line, Riser, Main Line, Etc.)	30.1 MI. OF 14" GENESIS P.L. + JUMPER			
GENERAL COMMENTS				
SIGNATURE OF COMPANY REPRESENTATIVE <i>KENNETH P. BRIEN</i>	SIGNATURE OF CONTRACTOR REPRESENTATIVE			

INSTRUCTIONS FOR COMPLETION:

- I. Test section location - The line section being tested should be adequately described by survey alignment sheets which indicate section number, section, township, range, block no. and names of facilities. For existing pipelines, the description should be the same as that shown on the "Pipeline Facilities Information List".
 - II. Line History - All data on pipeline should be filled out.
 - III. Data Check List
 - A. Test Medium - medium used; such as sea water, fresh water, crude oil, etc.
 - B. Tested By - name of company performing test.
 - C. Test Pressure - minimum pressure used in test from recorder.
 - D. Principal Test Equipment - a list of principal test equipment.
 - E. Average Temperature of Test Medium - average testing fluid temperature should be recorded at both ends of test section to facilitate pressure calculations based on a temperature differential.
 - F. Pressure at Lowest Elevation Point in Test Section - the pressure at the lowest elevation point in the section tested shall be calculated and recorded along with the elevation and the location of that point. The location should be made from established topographic surveys or alignment sheets.
 - G. Pressure at Highest Elevation Point in Test Section - the pressure at the highest elevation point in the section tested shall be calculated and recorded along with the elevation and the location of that point. The location should be made from established topographic surveys or alignment sheets.
 - H. Test Duration - must record test pressure for entire test. Starting and completion times are to be recorded.
 - I. Are Test Pressure Continuous - if the test pressure fluctuates, explain briefly the cause, whether it be faulty equipment, gauges, or line failure.
 - J. Description of Facility Tested - Pipeline section, pump station manifold, riser, main line, etc.
 - K. Signature of contractor and company employee responsible for test.
- * Values to be "corrected" from calibration chart.

ONE AVAILABLE COPY

Hydrostatic Test Report

ATTACHMENT TO PL - 318

SHELL JOB NO. AFE-116000	ES NO.
DATE PREPARED 3-16-98	PAGE 2 OF 2

TEST SECTION HYDRO TEST OF 14" GENESIS P.L. FROM ST 301 - GC 205	CONTRACTOR ALLSEAS / CSI
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EQUIPMENT			
TYPE	MAKE	MODEL	SERIAL NO.
DEAD-WEIGHT TESTER	CHANDLER	0 - 4500 PSI	10394 & 7012
AMBIENT TEMP RECORDER	BARTON	0 - 150 F	M2356 & 5040
TEST MEDIUM TEMP RECORDER	BARTON	0 - 150 F	265A-4029 & 5026
PRESSURE RECORDER	BARTON	0 - 3000 PSI	L00090 & 6032

RECORD OF TEST DATA				
TIME	PRESSURE	AMBIENT TEMP.	TEST MEDIUM TEMP.	REMARKS
0:09				SLOWED PUMP RATE TO MAIN. 10PSI PER MIN.
0:15	2060			
0:25				PUMP RUNNING BAD, FUEL VALVE TURNED.
0:30				DUE TO VIBRATION - BACK TO NORMAL.
0:30	2150			
0:50	2292			STARTED PLOT.
2:00	2865	65		ON 8 HR. TEST TIME.
2:15	2865	66	65	
2:30	2865	66	65	
2:45	2865	66	65	
3:00	2865	66	65	
3:30	2865	66	65	
4:00	2865	66	65	
4:30	2865	66	65	
5:00	2865	66	65	
5:30	2865	66	65	
6:00	2865	66	65	
6:30	2865	66	65	
7:00	2865	66	66	
7:30	2865	67	67	
8:00	2865	67	68	
8:30	2865	68	69	
9:00	2865	68	70	
9:30	2865	69	71	
10:00	2865	69	71	
10:15	2865	70	71	END OF 8 HR. TEST, BLEEDING DOWN TO 0 PSI
12:30	0			

BEST AVAILABLE COPY

CONTRACTOR REPRESENTATIVE <i>Vernon A. Fortland</i>	COMPANY REPRESENTATIVE <i>Kenneth Bain</i>
--	---

C.S.I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P O. BOX 51282, O.C.S.

LAFAYETTE, LA. 70505

Company All Seas

BEST AVAILABLE COPY

Line Genesis 14" oil Location S T 301-B Job No. 115-005 Length 30,1 mi ft.

Line Size 14" O.D. 14" W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

Terrain Sea Soil Condition water

Fill began _____ at _____ A.M. P.M. Fill Completed _____ at _____ A.M. P.M.

Meter Reading: Beginning _____ Gals., Final _____ Gal.

Displacement: Theoretical _____ Gal., Meas. _____ Gal.

Gallons Required to increase pressure from _____ P.S.I.G. to _____ P.S.I.G. _____ Gal.
PRESSURE PUMP MEASUREMENT

Exposed pipe 30' ft. General Contractor _____

Fill water Temperature

TIME		Deadweight Pressure	TEMPERATURE OF			REMARKS
Data	Hour		Air	Pipe	Remote Earth	
3-15-98	17:25	-0-				Started press on 8/1
	18:25	960				
	18:30	1030				
	18:45	1250				
	19:00	1490				
	19:15	1710				
	19:30	1940				
	19:35	Slowed pump down preparing for Plot of 10^{10} per min.				
	19:45	2100				
	20:08	Took pump out of gear @ 2292 PST preparing to start plot strokes @ This Time 2988.30				
	21:30	2865	@ Test press. on 1 hr. Hold Test.			
	21:45	2865	65°			
	22:00	2865	65°			
	22:15	2865	65°			
	22:30	2865	65°	End of 1 hr Hold. Start Bleed down		
	23:25	1440	Finished Bleeding down.			
	23:30	1440	Started press off to 80% of test press			
	23:45	1650				
	24:00	1880				
3-16-98	00:09	Slowed pump rate down to maintain 10 PST min.				

CSI Engineer

Vernon A. Fortenot

Field Approval for Pipeline Company

Witness 1

Shawna

Insp.

Kenneth Brian

2

Chief Insp.

DOWN HOLE PRESSURE, INC.
INSTRUMENT RENTALS & REPAIR

1036A SOUTH CRUSE AVENUE
 BROUSSARD, LOUISIANA 70518

(318) 837-2755

FAX: (318) 837-2756

Surface Gauges

Dead Weight Testers

Benton Recorders

Vacuum Gauges

5-10/12-20000 PSI

Sub Surface Gauges

Electronic & Mechanical

0-25,000 PSI Ranges

Temperature Gauges

0-450 Degrees F

CALIBRATION CERTIFICATE

DESCRIPTION: CHARTOMETER PRESSURE RECORDER SERIAL NUMBER: L00090 & 6032

PRESSURE TEMP. RANGE 3,000# PSI, ACCURACY \pm 1% FULL SERVICE (\pm ____ PSI)

CALIBRATION

INCREASING PRESSURE <input checked="" type="checkbox"/>	TEMPERATURE <input type="checkbox"/>	DECREASING PRESSURE <input checked="" type="checkbox"/>	TEMPERATURE <input type="checkbox"/>
APPLIED PRESS. <input checked="" type="checkbox"/> TEMP. <input type="checkbox"/>	INDICATED PRESSURE <input checked="" type="checkbox"/> TEMP. <input type="checkbox"/>	APPLIED PRESS. <input checked="" type="checkbox"/> TEMP. <input type="checkbox"/>	INDICATED PRESSURE <input checked="" type="checkbox"/> TEMP. <input type="checkbox"/>
600#	600#	3000#	3000#
1200#	1200#	2400#	2400#
1800#	1800#	1800#	1800#
2400#	2400#	1200#	1200#
3000#	3000#	600#	600#

BEST AVAILABLE COPY

Calibrated in VERTICAL Position. Temp. 70 °F.

This is to certify that this instrument has been inspected and tested against Pressure Standard Chandler Engineering Dead Weight Tester Model # 58-200H, Serial # 16210 traceable to the National Institute of Standards and Technology, NIST Reference No. 105, Procedure No. MT-P-142. Calibrated (04-01-97) Calibration Control No. 040197099-01. The calibration system conforms to the requirements of ISO-9000 criteria. (MIL-STD, 45662A)

Special Conditions:

DATE OF CALIBRATION 10/23/1997

TECHNICIAN Zeggi Samou

DOWN HOLE PRESSURE, INC.
INSTRUMENT RENTALS & REPAIR

1036A SOUTH CRUSE AVENUE
 BROUSSARD, LOUISIANA 70518

(318) 837-2755

FAX: (318) 837-2756

Surface Gauges

Dead Weight Testers

Barton Recorders

Vaetrix Gauge 1

5, 10, & 20,000 PSI

Sub Surface Gauges

Electronic & Mechanical

0-25,000 PSI Ranges

Temperature Gauges

0-450 Degrees F.

CALIBRATION CERTIFICATE

DESCRIPTION CHANDLER DEAD WEIGHT TESTER SERIAL NUMBER 10394 & 7012

PRESSURE TEMP. RANGE 4500 P.S.I. ACCURACY \pm .05 % FULL SERVICE (\pm) P.S.I.)

CALIBRATION

INCREASING PRESSURE <input checked="" type="checkbox"/>		TEMPERATURE <input type="checkbox"/>	DECREASING PRESSURE <input checked="" type="checkbox"/>		TEMPERATURE <input type="checkbox"/>
APPLIED PRESS. TEMP.	INDICATED PRESSURE TEMP.	DIFFERENCE	APPLIED PRESS. TEMP.	INDICATED PRESSURE TEMP.	DIFFERENCE
500	500	0	4500	4500	0
1000	1000	0	4000	4000	0
1500	1500	0	3500	3500	0
2000	2000	0	3000	3000	0
2500	2500	0	2500	2500	0
3000	3000	0	2000	2000	0
3500	3500	0	1500	1500	0
4000	4000	0	1000	1000	0
4500	4500	0	500	500	0

BEST AVAILABLE COPY

Calibrated in VERTICAL Position. Temp. 70 °F.

This is to certify that this instrument has been inspected and tested against Pressure Standard Chandler Engineering Dead Weight Tester Model # 58-200H, Serial # 16210 traceable to the National Institute of Standards and Technology, NIST Reference No. 105, Procedure No. MT-P-142. Calibrated (04-01-97) Calibration Control No. 040197099-01. The calibration system conforms to the requirements of ISO-9000 criteria. (MIL-STD, 45662A)

Special Conditions:

DATE OF CALIBRATION 12/29/1997

TECHNICIAN

DOWNHOLE PRESSURE, INC.

INSTRUMENT RENTALS & REPAIR

1036A SOUTH CRUISE AVENUE

BROUSSARD LOUISIANA 70518

(318) 837-2755

FAX: (318) 837-2756

Surface Gauges

Dead Weight Testers

Barton Recorders

Vaetrix Gauge 1

5, 10, & 20,000 PSI

Sub Surface Gauges

Electronic & Mechanical

0-25,000 PSI Ranges

Temperature Gauges

0-450 Degrees F.

CALIBRATION CERTIFICATE

DESCRIPTION BARTON METER TEMPERATURE RECORDER SERIAL NUMBER M2356 & 5040

MEDIUM

PRESSURE TEMP. RANGE 0-150°F XXXX ACCURACY ± 1 % FULL SERVICE (± _____ PSI.)

CALIBRATION

INCREASING PRESSURE <input type="checkbox"/>		TEMPERATURE <input checked="" type="checkbox"/>	DECREASING PRESSURE <input type="checkbox"/>		TEMPERATURE <input checked="" type="checkbox"/>
APPLIED PRESS. <input type="checkbox"/>	INDICATED PRESSURE <input type="checkbox"/>	TEMP. <input checked="" type="checkbox"/>	APPLIED PRESS. <input type="checkbox"/>	INDICATED PRESSURE <input type="checkbox"/>	TEMP. <input checked="" type="checkbox"/>
30°	30°	<input checked="" type="checkbox"/>	150°	150°	<input checked="" type="checkbox"/>
60°	60°	<input checked="" type="checkbox"/>	120°	120°	<input checked="" type="checkbox"/>
90°	90°	<input checked="" type="checkbox"/>	90°	90°	<input checked="" type="checkbox"/>
120°	120°	<input checked="" type="checkbox"/>	60°	60°	<input checked="" type="checkbox"/>
150°	150°	<input checked="" type="checkbox"/>	30°	30°	<input checked="" type="checkbox"/>

NIST AVAILABLE COPY

Calibrated in VERTICAL Position. Temp. 72 °F.

This is to certify that this instrument has been inspected and tested against Pressure Standard Chandler Engineering Dead Weight Tester Model # 58-200H, Serial # 16210 traceable to the National Institute of Standards and Technology, NIST Reference No. 105, Procedure No. MT-P-142. Calibrated (04-01-97) Calibration Control No. 040197099-01. The calibration system conforms to the requirements of ISO-9000 criteria. (MIL-STD, 45662A)

Special Conditions: Inspected & Tested against Digital Thermometer #301800 traceable to the (NIST) Instrument Model #10-TM99A-E & Probe Model #10-1075. Calibrated 05/09/1997

DATE OF CALIBRATION 10/23/1997 TECHNICIAN *Jessie Samai*

DOWNHOLE PRESSURE, INC.

INSTRUMENTS & INSTRUMENTAL REPAIR

KNOX SOUTH CRUISE AVENUE

BROUSSARD, LOUISIANA 70525

Surface Gauges

(318) 837-2755

Dead Weight Testers

FAX (318) 837-2756

Barton Recorders

Sub Surface Gauges

Electronic & Mechanical

0-25,000 PSI Ranges

Temperature Gauges

0-450 Degrees F.

Vapor Gauge 1

5, 10, & 20,000 PSI

CALIBRATION CERTIFICATE

DESCRIPTION BARTON METER TEMPERATURE RECORDER SERIAL NUMBER 265A-4029 & 5026

AMBIENT

PRESSURE TEMP. RANGE 0-150°F PSIX ACCURACY \pm 1 % FULL SERVICE (\pm P.S.I.).

CALIBRATION

INCREASING PRESSURE <input type="checkbox"/>		TEMPERATURE <input checked="" type="checkbox"/>	DECREASING PRESSURE <input type="checkbox"/>		TEMPERATURE <input checked="" type="checkbox"/>
APPLIED PRESS. <input type="checkbox"/>	INDICATED PRESSURE <input type="checkbox"/>	TEMP.	APPLIED PRESS. <input type="checkbox"/>	INDICATED PRESSURE <input type="checkbox"/>	TEMP.
30°	30°	0	150°	150°	0
60°	60°	0	120°	120°	0
90°	90°	0	90°	90°	0
120°	120°	0	60°	60°	0
150°	150°	0	30°	30°	0

PRINTABLE COPY

Calibrated in VERTICAL Position. Temp. 70 °F

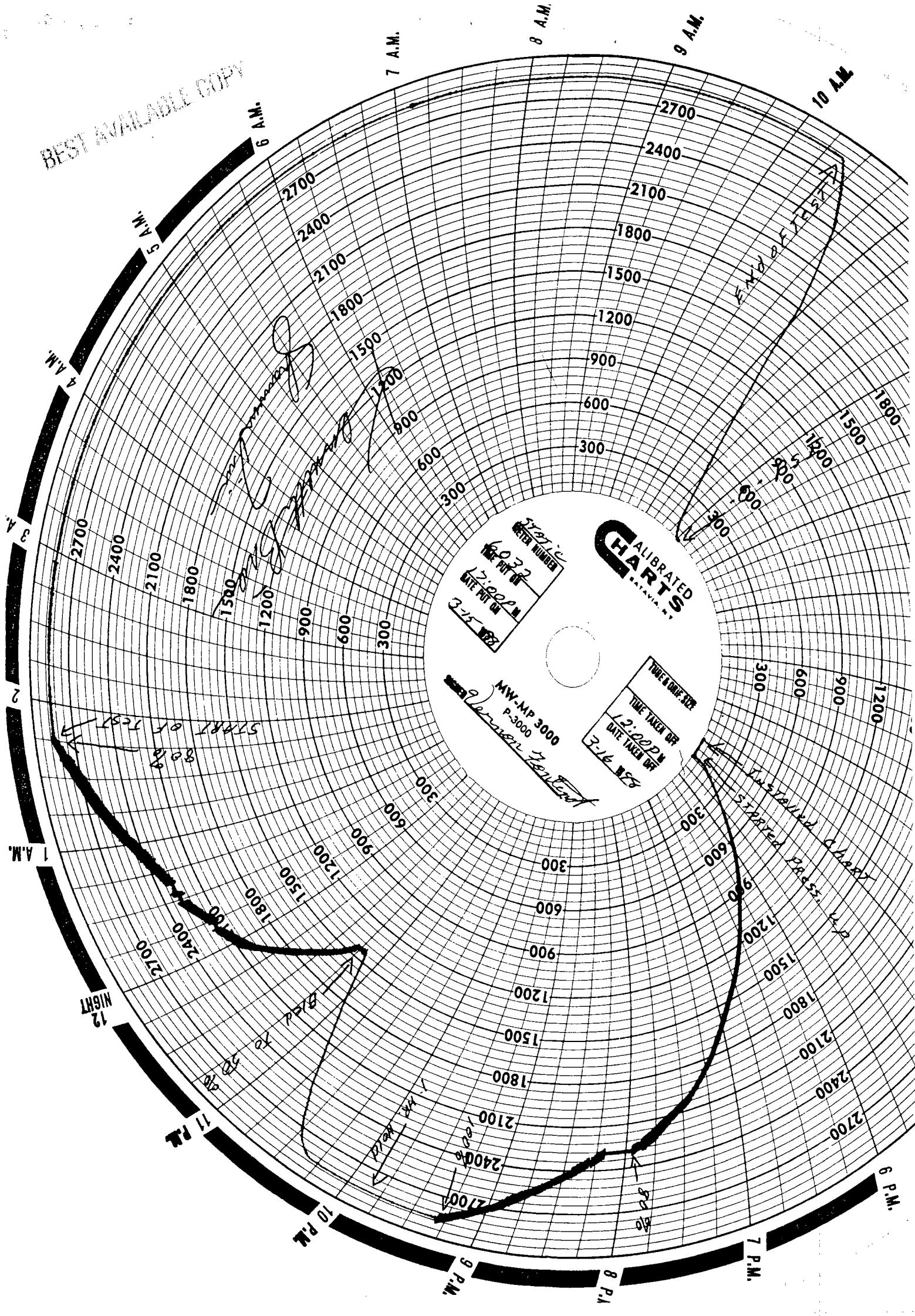
This is to certify that this instrument has been inspected and tested against Pressure Standard Chandler Engineering Dead Weight Tester Model # 58-200H, Serial # 16210 traceable to the National Institute of Standards and Technology, NIST Reference No. 105, Procedure No. MT-P-142. Calibrated (04-01-97) Calibration Control No. 040197099-01. The calibration system conforms to the requirements of ISO-9000 criteria. (MIL-STD, 45662A)

Special Conditions: Inspected & Tested against Digital Thermometer #301800 traceable to the (NIST) Instrument Model #10-TM99A-E & Probe Model #10-1075, Calibrated 05/09/1997.

DATE OF CALIBRATION 10/23/1997

TECHNICIAN *Rossi Sassi*

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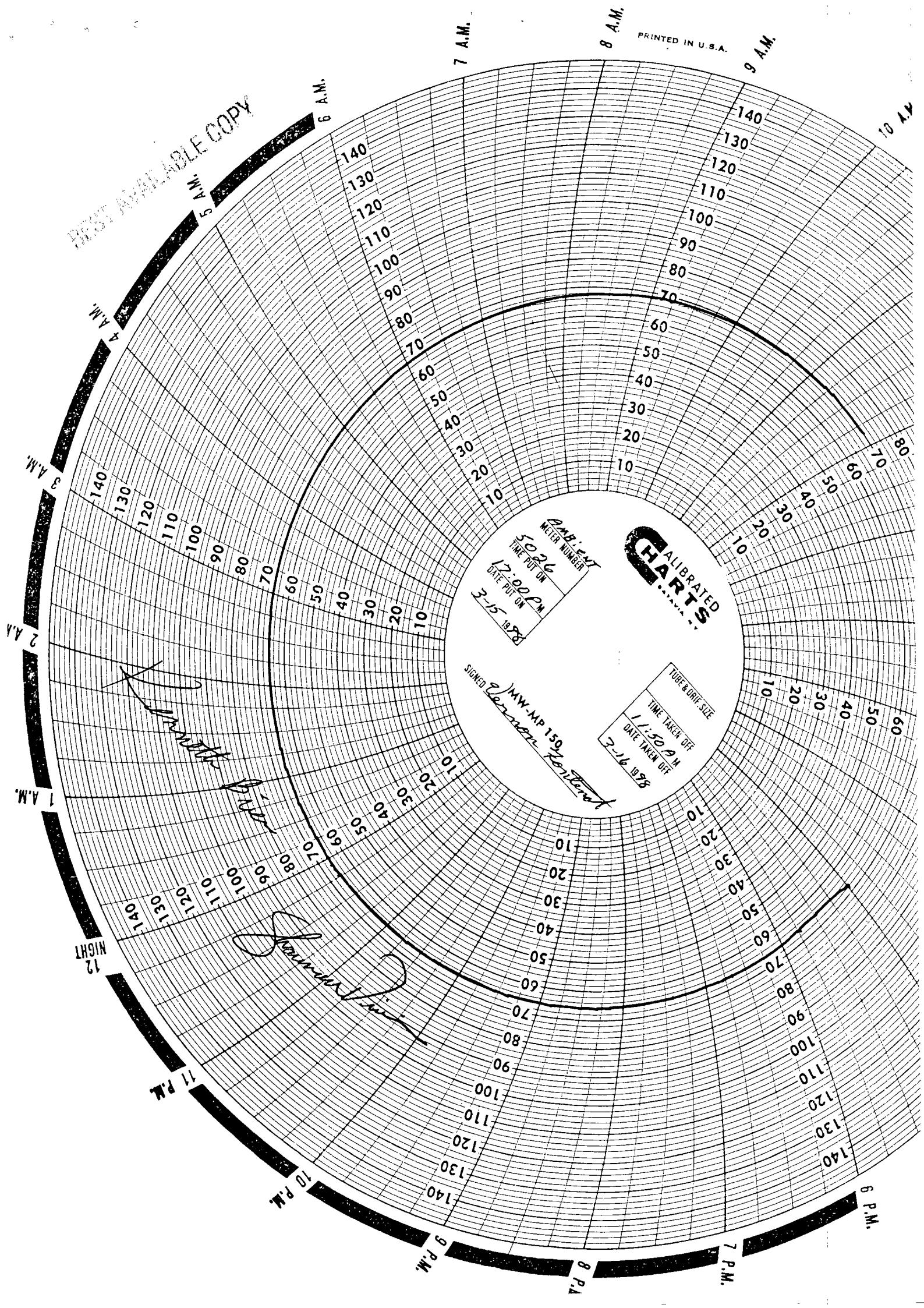
BEST AVAILABLE COPY

ALIBRATED
HARTS

NUMBER
5026
TIME PUT ON
12:00 P.M.
DATE PUT ON
3-15-1998

TUBE & DYE SIZE
TIME TAKEN OFF
1:50 P.M.
DATE TAKEN OFF
3-16-1998

SIGNED
C. E. HART



PRINTED IN U.S.A.

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CALIBRATED
CHARTS

Pipe Test
METER NUMBER
1040

TIME PUT ON
17:00 P.M.
DATE PUT ON
3-15-1968

TUBE & DRIFT SIZE
12.000" M
TIME TAKEN OFF
12:00 P.M.
DATE TAKEN OFF
3-16-1968

SIGNED
MM-MP 159

WEIGHT

110

120

130

140

150

160

170

180

190

200

210

220

230

240

250

260

270

280

290

300

310

320

1 A.M.

2 A.M.

3 A.M.

4 A.M.

5 A.M.

6 A.M.

7 A.M.

8 A.M.

9 A.M.

10 A.M.

11 A.M.

12 P.M.

1 P.M.

2 P.M.

3 P.M.

4 P.M.

5 P.M.

6 P.M.

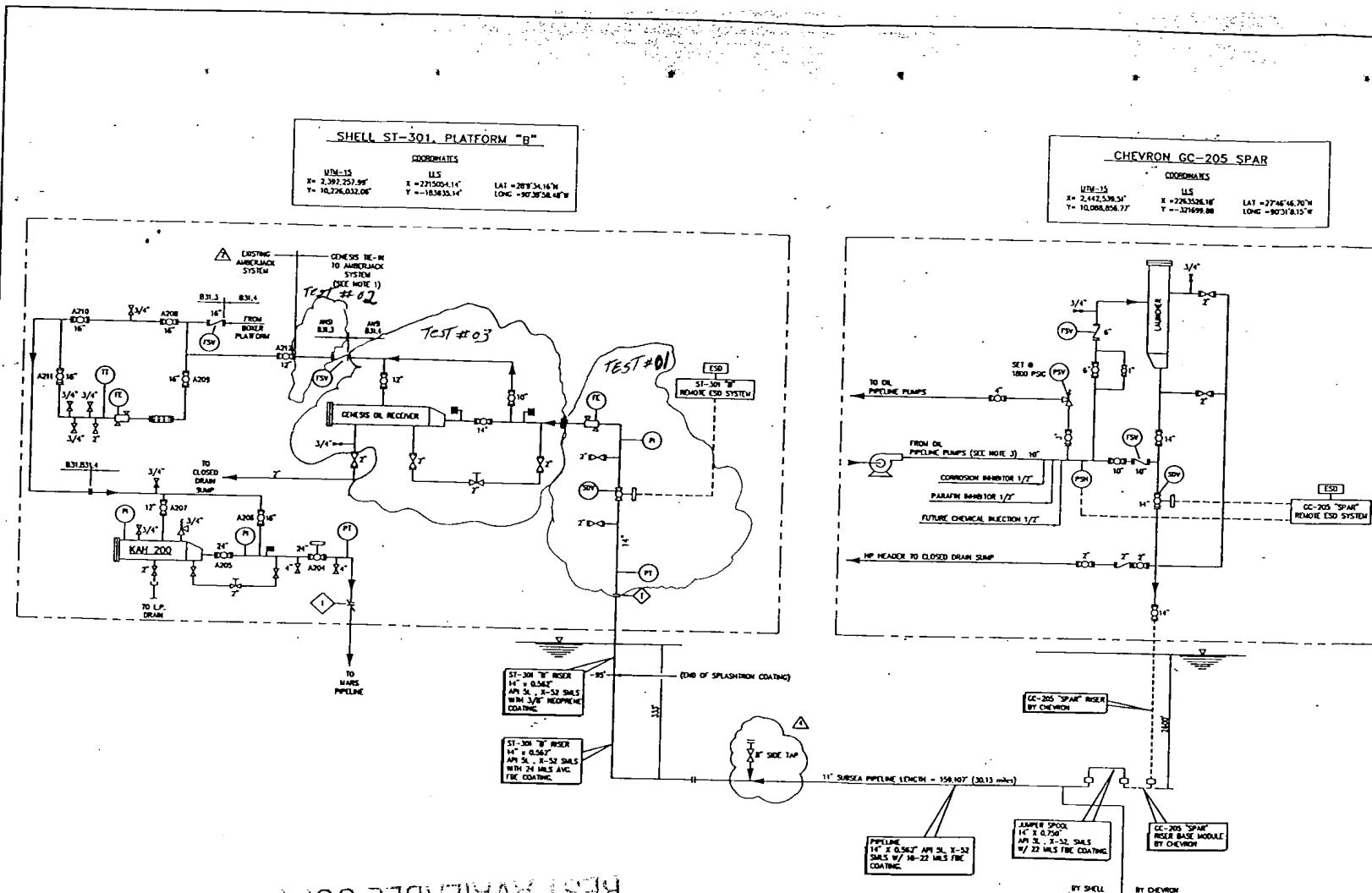
7 P.M.

8 P.M.

9 P.M.

10 P.M.

11 P.M.



**DESIGN DATA AND FLOW RATES
PIPELINE AND RISER SYSTEM**

DESIGN CODES: DGS-97-079
ANS 31-8
DESIGN FLUID: CRUDE OIL
MAXIMUM DESIGN PRESSURE: 2170 PSIG
MAXIMUM ALLOWABLE OPERATING PRESSURE (TEMP 125°F): 1800 PSIG
AVERAGE CRUDE OIL SPECIFIC GRAVITY: 25 to 30 deg API
DESIGN FLOW RATE: 55,000 BPD

14" PIPELINE FACILITIES TO BE INSTALLED & CERTIFIED

PIPELINE:
H OF OIL 2" X 0.562" WT API SL X-52 SHLS
SI-301 2" RISER
H OF OIL 2" X 0.562" WT API SL X-52 SHLS

JUMPER PIPELINES:
H OF OIL 2" X 0.562" WT API SL X-52 SHLS
TO BE INSTALLED BY SHELL, BUT CERTIFIED BY CHEVRON

CC-205 2" RISER:
TO BE INSTALLED AND CERTIFIED BY CHEVRON (SEE NOTE 2)

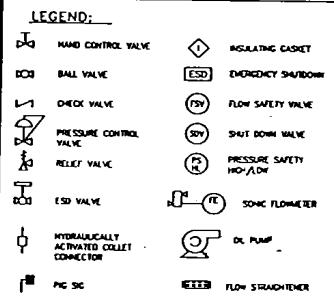
CC-205 2" RISER BASE MODULE:
TO BE INSTALLED AND CERTIFIED BY CHEVRON.

SHUT DOWN VALVES:
1" AND 2" 90° FT X FT, FULL OPENING, BRUNTON MOUNTED BALL VALVE

FLANGES IN RISERS AND PIPELINE:
1" AND 2" 90° FT

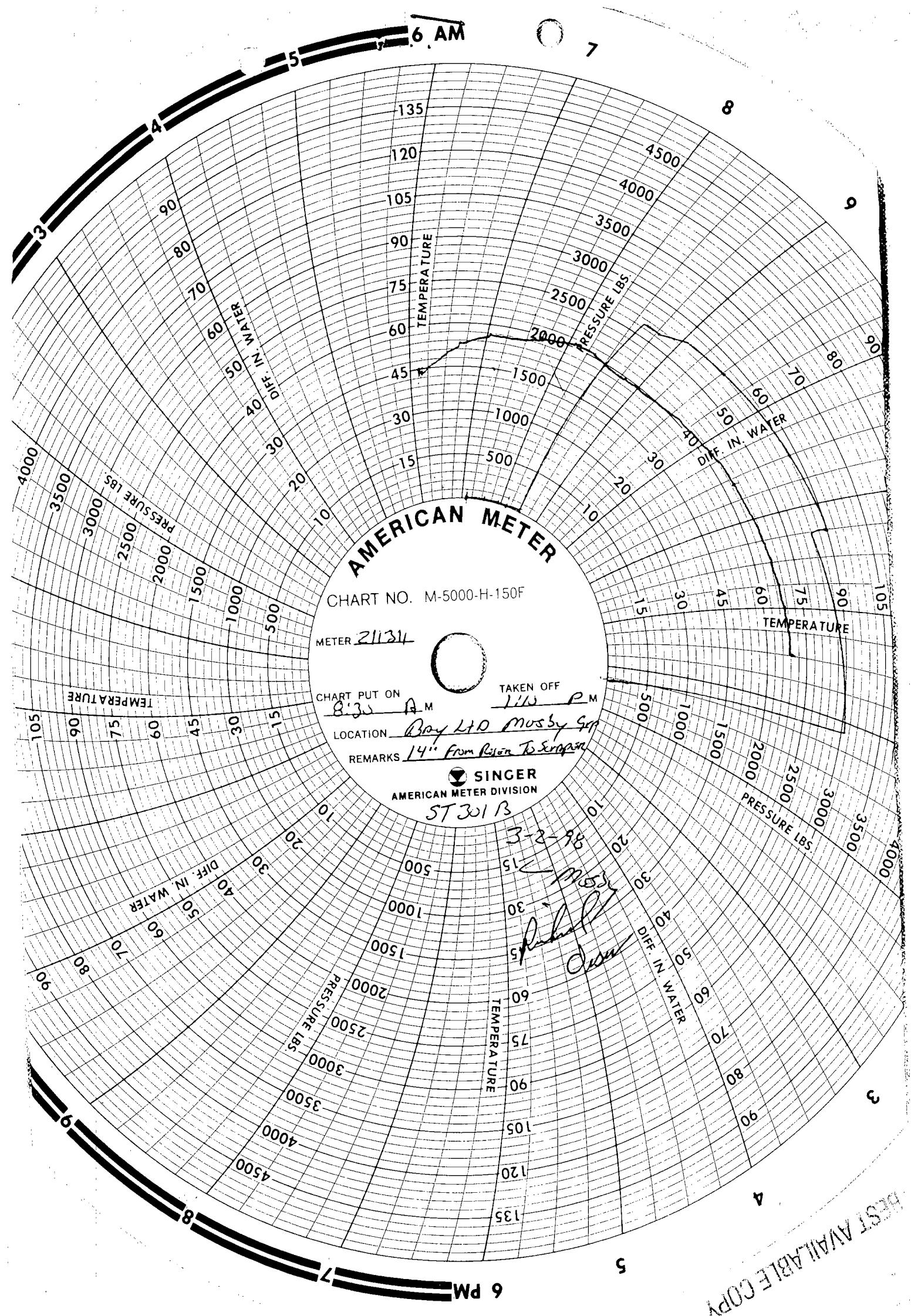
CLAMPS AND VALVES:
ALL WELD FITTINGS AND VALVES RATED FOR DESIGN PRESSURE GREATER THAN OR EQUAL TO MAOP OF PIPELINE. ALL FLANGE STUD BOLTS AND NUTS TOTALLY COATED. BOLTS ASTM A-193 OR 87, NUTS ASTM A-194 OR 2

CATHODIC PROTECTION:
SACRIFICIAL ANODE SYSTEM
1" AND 2" ANODE: AL-MN-ZN ALLOY
2" SPACING: 40FT
BUOY ANODES:
1) INTERNAL RING DESIGN (1.562" THICK X 7" LONG)
SPACING = 200' (BETWEEN WATER DEPTH OF 200' AND 260')
2) CROUDED SLEEVES DESIGN (7/8" THICK X 15" LONG)
SPACING = 200' (BETWEEN WATER DEPTH OF 150' TO 200')



- NOTE:
 1) PRESSURE RATING OF GENESIS 14" PIPELINE IS LIMITED TO MAOP (1800 PSIG) OF THE PIPELINE DOWNTREAM - AMBIERACK SYSTEM.
 2) THE OIL EXPORT RISER IS 14-INCH NOMINAL LINE PIPE API SL X-52 GRADE, WITH PROBABLY 0.5-INCH WALL THICKNESS, COATED WITH A CORROSION PROTECTION COAT THAT IS CATHODICALLY PROTECTED. THE OIL EXPORT RISER CONTAINS FLANGED CONNECTORS BETWEEN THE RISER LENGTHS. THE NUMBER OF SPLICED JOINTS AND THE WALL THICKNESS AND DIAMETER CONFIURATION.
 3) THE MAXIMUM DISCHARGE PRESSURE ON THE OIL PIPELINE PUMPS IS 2170 PSIG. THE OIL PUMPS ON THE SPAR ARE DESIGNED FOR API RP-14C, PART A7. THE PUMP DOWNTREAM OF THE PUMPS IS SET AT 1,000 PSIG.

FLOW DIAGRAM & SAFETY SCHEMATICS
GENESIS 14" OIL PIPELINE
CC-205 TO ST301 DOWNTSTREAM



BEST AVAILABLE COPY

PL-318 (REV. 4-82) 002279

HYDROSTATIC TEST CERTIFICATION DATA

LINES FALLING WITHIN D.O.T. LIQUID AND GAS PIPELINE REGULATIONS

SHELL PIPE LINE CORPORATION

JOB NO.	116 000
ES NO.	96-062

Instructions for Completion on Reverse Side.

PIPELINE <i>GENESIS 14" OIL PIPELINE</i>	LOCATION CODE <i>ST 301 B</i>
SECTION TESTED FROM STATION SURVEY TEST # 01 <i>14" RISER TIE IN TO 14" 900' SCRAPER</i>	TO STATION SURVEY <i>MOSBY INC BELL, CHASSE LA</i>

LINE HISTORY			
DATE CONSTRUCTED <i>2-28-98</i>	O.D. <i>14" + 2 3/8</i>	TYPE (Seamless, ERW, etc.) <i>SEAMLESS</i>	
SPEC. MIN. YIELD <i>X-52</i>	WALL <i>14", 542 - 2" S/80 XH</i>	ANSI RATING VALVES	FLANGES <i>900 # 1500"</i>
DATE TEST PERFORMED <i>3-2-98</i>			

DATA CHECKLIST	REMARKS
TEST MEDIUM <i>WATER</i>	
TESTED BY: <i>MOSBY, INC.</i>	
TEST PRESSURE - MINIMUM <i>2700</i>	
LIST PRINCIPAL TEST EQUIPMENT (Pump, Tester, Recorder, etc.)	
AVERAGE TEMPERATURE OF TESTING MEDIUM <i>74</i>	
PRESSURE AT LOWEST ELEVATION POINT IN THE SECTION, INCLUDING ELEVATION AND LOCATION. <i>2800</i>	
PRESSURE AT HIGHEST ELEVATION POINT IN THE TEST SECTION, INCLUDING ELEVATION AND LOCATION. <i>2800</i>	
TEST DURATION (Including time started and completed)	DURATION <i>4 HOURS 40 MINUTES</i> HOURS
	STARTED <i>0830</i> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM
	COMPLETED <i>1:10</i> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM
ARE PRESSURES CONTINUOUS? If not, explain. <i>TIME RISE BLW DOWN 11:15'</i>	
DESCRIPTION OF FACILITY TESTED. (Hwy-xing, River, Pump Station, Buried Line, etc.) <i>14" RISER TO 14" SCRAPER</i>	
GENERAL COMMENTS <i>BLW DOWN AT 11:15' TIME RISE</i>	
SIGNATURE OF OPERATOR'S EMPLOYEE RESPONSIBLE FOR TEST <i>C. Mosby</i>	

ATTACHMENTS REQUIRED FOR EACH TEST

- 1) Dead Weight Tester Data.
- 2) Recording Gauge Charts.
- 3) Elevation profile of Line Indicating Test Site (Required If Elevation Difference Greater than 100').
- 4) Records of Failures (Remarks PL-318A).
- 5) Diagram, drawing or sketch.
- 6) Record of test data PL-318A

RETENTION: As long as Facility Tested is In Use.

DISTRIBUTION, WITH ATTACHMENTS

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Hydrostatic Test Report

ATTACHMENT TO PL-318

SHELL JOB NO. 14" GENESIS OIL API#2	ES NO.
DATE PREPARED 3-2-98	PAGE 1 OF 1

TEST SECTION 14" AT RISER TO 14" RECEIVER FLO.	CONTRACTOR RAY MOSBY ENTERPRISES BILGE CHASSE 27		
EQUIPMENT			
TYPE	MAKE	MODEL	SERIAL NO.
DEAD-WEIGHT TESTER	VATETRIX	GAUCII 070,000	996
AMBIENT TEMP RECORDER			
TEST MEDIUM TEMP RECORDER	BARTON		211311

RECORD OF TEST DATA				
TIME	PRESSURE	AMBIENT TEMP.	TEST MEDIUM TEMP.	REMARKS
8:30 AM	0	72°	60°	pumping up To 2700
9:00 AM	2800	72°	63°	sunny, clear and windy
9:15 AM	2805	73°	60°	sunny, clear and windy
9:30 AM	2820	73°	59°	sunny, clear and windy
9:45 AM	2830	73°	60°	sunny, clear and windy
10:00 AM	2850	73°	60°	sunny, clear and windy
10:15 AM	2875	75°	60°	sunny, clear and windy
10:30 AM	2900	76°	60°	sunny, clear and windy
10:45 AM	2950	77°	60°	sunny, clear and windy
11:00 AM	2997	78°	62°	sunny, clear and windy
11:15 AM	3000	78°	64°	sunny, clear and windy
11:30 AM	2810	78°	64°	Bleed down To 2800
11:45 AM	2849	78°	65°	sunny, clear and windy
12:00 PM	2900	77°	66°	sunny, clear and windy
12:15 PM	2920	80°	66°	sunny, clear and windy
12:30 PM	2955	80°	67°	sunny, clear and windy
12:45 PM	2998	80°	68°	sunny, clear and windy
1:00 PM	3005	80°	68	sunny, clear and windy
1:10 PM	3015	80°	68	The End



Jo-De Equipment Rental Company, Inc.

111 ESG-ALLEN ROAD
BELLE CHASSE, LOUISIANA 70011
PHONE 1196-1161

BEET AVAILABLE COPY

CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER
Model Number Serial Number 211311 Range 0-5000 P
Date of Calibration 10-2-97 Inspector David Rogers

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE

DECREASING PRESSURE/TEMPERATURE

APPLIED	INDICATED		APPLIED	INDICATED	
0	0		5000	5000	
1250	1250		3750	3750	
2500	2500		2500	2500	
3750	3750		1250	1250	
5000	5000		0	0	

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION



Jo-De Equipment Rental Company, Inc.

2624 ENGINEERS ROAD
BELLE CHASSE, LOUISIANA 70037
PHONE: (504) 394-6024

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CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER
Model Number _____ Serial Number 211311 Range 0-150 TEMP.
Date of Calibration 10-2-97 Inspector David Rogers

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE		DECREASING PRESSURE/TEMPERATURE			
APPLIED	INDICATED	APPLIED	INDICATED		
33'	33'		150'	150'	
50'	50'		125'	125'	
75'	75'		100'	100'	
100'	100'		75'	75'	
125'	125'		50'	50'	
150'	150'		33'	33'	

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION

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6 AM

8

9

AMERICAN METER
Test #02

CHART NO. M-5000-H-150F

METER 211311

TAKEN OFF
12:20 PM

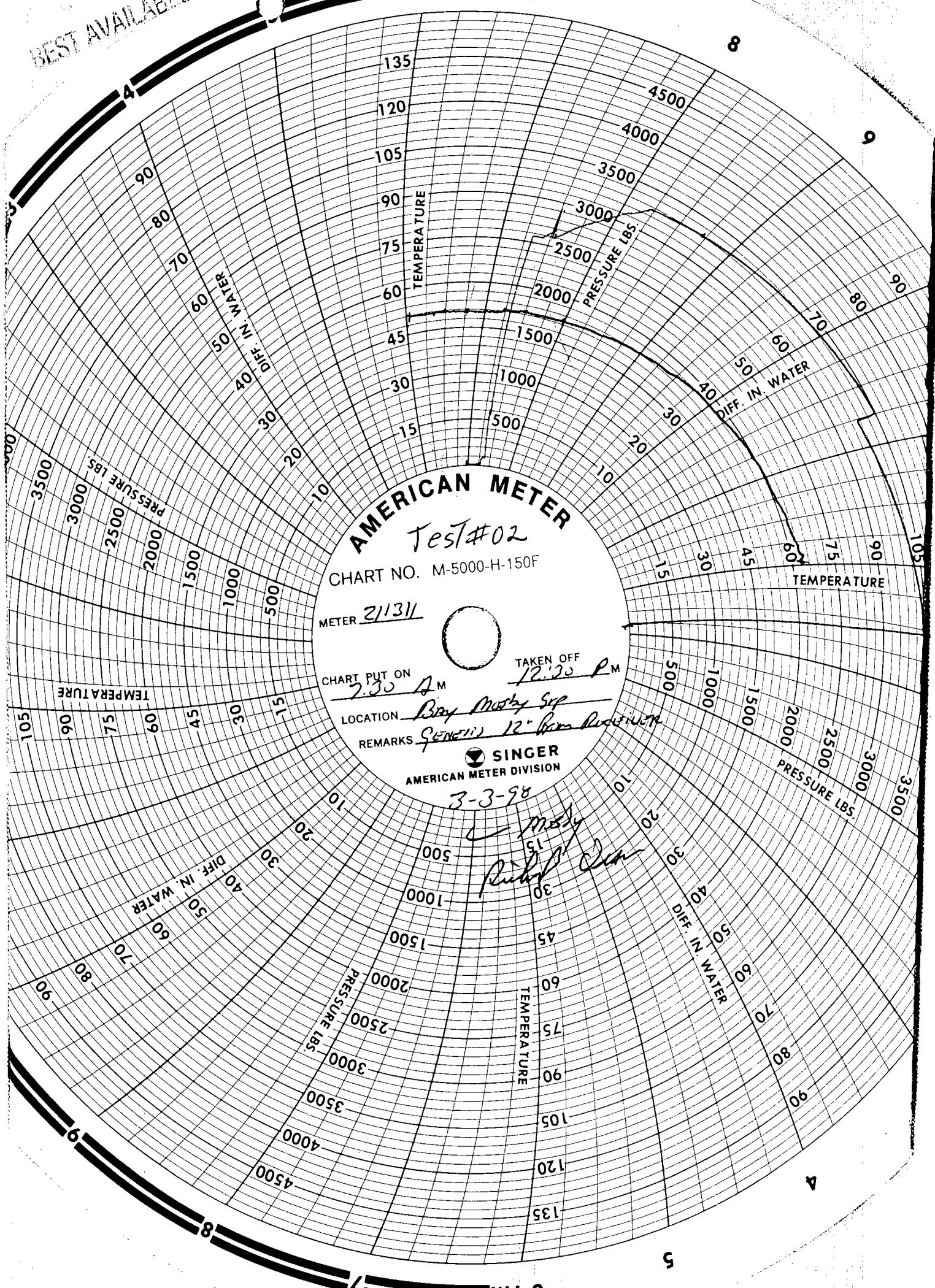
CHART PUT ON
7:30 AM

LOCATION Bay Marsh Sip
REMARKS General 12' from bottom

SINGER
AMERICAN METER DIVISION

3-3-98

Rick D. [Signature]



6 PM

5

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PL-318 (REV. 4-82) 002279

HYDROSTATIC TEST CERTIFICATION DATA

LINES FALLING WITHIN D.O.T. LIQUID AND GAS PIPELINE REGULATIONS

SHELL PIPE LINE CORPORATION

JOB NO.	116000
ES NO.	96-062

- Instructions for Completion on Reverse Side.

PIPELINE GENESIS 14" OIL PIPE LINE	LOCATION CODE	AREA ST 301A
SECTION TESTED FROM STATION SURVEY TEST # 02 12" FROM RIVER TO EXISTING TIE IN	TO STATION SURVEY	TEST SITE LOCATION MOSBY INC BELL CHASSIS

LINE HISTORY			
DATE CONSTRUCTED 2-28-98	O.D. 12 3/4	TYPE (Seamless, ERW, etc.) SEAMLESS	
SPEC. MIN. YIELD GR A28 C	WALL 8/80	ANSI RATING 300	VALVES FLANGES
DATE TEST PERFORMED 3-3-98	REMARKS		

DATA CHECKLIST		REMARKS	
TEST MEDIUM WATER			
TESTED BY: MOSBY ENTERPRISES			
TEST PRESSURE - MINIMUM WATER			
LIST PRINCIPAL TEST EQUIPMENT (Pump, Tester, Recorder, etc.)			
AVERAGE TEMPERATURE OF TESTING MEDIUM 81			
PRESSURE AT LOWEST ELEVATION POINT IN THE SECTION, INCLUDING ELEVATION AND LOCATION. 3265			
PRESSURE AT HIGHEST ELEVATION POINT IN THE TEST SECTION, INCLUDING ELEVATION AND LOCATION. 3265			
TEST DURATION (Including time started and completed)	DURATION 4 HOURS 15 min	HOURS	
	STARTED 0815	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	
	COMPLETED 12:30	<input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	
ARE PRESSURES CONTINUOUS? If not, explain.	Drilled down from Temp at 10:45		
DESCRIPTION OF FACILITY TESTED. (Hwy-xing, River, Pump Station, Buried Line, etc.)	12" FROM RIVER TO EXISTING TIE IN		

GENERAL COMMENTS	
SIGNATURE OF OPERATOR'S EMPLOYEE RESPONSIBLE FOR TEST	<i>Mosby</i>

ATTACHMENTS REQUIRED FOR EACH TEST

- 1) Dead Weight Tester Data.
- 2) Recording Gauge Charts.
- 3) Elevation profile of Line Indicating Test Site (Required if Elevation Difference Greater than 100').
- 4) Records of Failures (Remarks PL-318A).
- 5) Diagram, drawing or sketch.
- 6) Record of test data PL-318A

RETENTION: As long as Facility Tested is in Use.

DISTRIBUTION, WITH ATTACHMENTS

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Hydrostatic Test Report

ATTACHMENT TO PL-318

SHELL JOB NO.	L143	ES NO.
DATE PREPARED	14 "GENESIS OIL APIE	PAGE
3-3-98		1 OF 1

TEST SECTION

12" FROM RISER UP TO 12" TEE IN

CONTRACTOR

BAX/MOSBY ENTERPRISES BELIE CHASSIS LA

EQUIPMENT

TYPE	MAKE	MODEL	SERIAL NO
DEAD-WEIGHT TESTER	VARIOTRIK	Gauge 0-10,000	994
AMBIENT TEMP RECORDER			
TEST MEDIUM TEMP RECORDER	BARTON		211311

RECORD OF TEST DATA

TIME	PRESSURE	AMBIENT TEMP.	TEST MEDIUM TEMP.	REMARKS
7:20 AM	0	66°	51°	Started pumping To 3240
8:15 AM	3265	66°	52°	cool, clear, sunny + windy
8:30 AM	3273	66°	52°	cool, clear, sunny + windy
8:45 AM	3290	68°	52°	cool, clear, sunny + windy
9:00 AM	3293	70°	53°	cool, clear, sunny + windy
9:15 AM	3340	74°	53°	cool, clear, sunny + windy
9:30 AM	3389	78°	54°	cool, clear sunny + windy
9:45 AM	3400	82°	54°	sunny, clear, cool and windy
10:00 AM	3420	90°	55°	sunny, clear, cool and windy
10:15 AM	3440	89°	57°	sunny, clear, cool and windy
10:30 AM	3487	90°	57°	sunny, clear, cool and windy
10:45 AM	3500	90°	58°	Bled down To 3300
11:00 AM	3310	87°	58°	sunny, clear, cool and windy
11:15 AM	3315	87°	59°	sunny, clear, cool and windy
11:30 AM	3340	88°	60°	sunny, clear, cool and wind
11:45 AM	3400	90°	60°	sunny, clear, cool and wind
12:00 PM	3410	91°	61°	sunny, clear, cool and win
12:15 PM	3450	91°	62°	sunny, clear, cool and wind
12:30	3500	91°	63°	The End

CERTIFICATE OF CALIBRATION

HD

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Huston DePue Labs Inc.

536 North Pennsylvania • Oklahoma City, Oklahoma 73107
 (405) 235-5469 • FAX (405) 235-0996
 (800) 721-6049

CUSTOMER	JO De	
TEST REPORT #	7202	
MANUFACTURE	Vactrix	
MODEL	Gauge 0-10,000PSI	
SERIAL NUMBER	996	
Date Cal'd	7.9.97	Date Due 7.9.98

REFERENCE STANDARD		
MANUFACTURE	MODEL	NIST REFERENCE #
Telese	710B	2MH-10892
Ashcroft	1305	821/253109

Huston-DePue Laboratories, Inc. hereby certifies that the calibration of the above instrument has been accomplished by comparison to standards whose accuracies are traceable to the National Institute of Standards and Technology (NIST) within the limits of the Institute's services, or have been derived from acceptable values of natural physical constants, or have been derived from the ratio type self calibration techniques, and meets the accuracies published by the manufacturer. Our calibration system complies with the latest revision of ANSI/NCSL Z540-1, MIL-I-45208A, ISO-10012 and ASTM-D120-94A.

Accuracy: $\pm .1\% FS$

Standard	Measured Data		Pass	Fail
	As Found	As Left		
PSI				
2500	-	2500	✓	
5000	-	5000	✓	
7500	-	7500	✓	
10,000	-	10,000	✓	

Temp 74°F

Humidity 46%RH

Procedure # 0429

Certified By Neil B. Johnson

Reviewed By Michael B. DePue



Jo-De Equipment Rental Company, Inc.

1111 ENGINEERS ROAD
BREWSTER CHASSE, LOUISIANA 70017
PHONE (318) 376-6071

BEST AVAILABLE COPY

CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER
Model Number _____ Serial Number 211311 Range 0-5000 psi
Date of Calibration 10-2-97 Inspector David Rogers

CALIBRATION

DAVID ROGERS

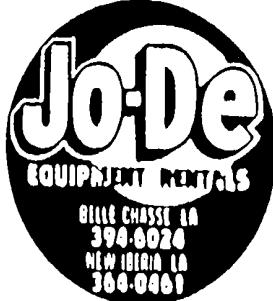
INCREASING PRESSURE/TEMPERATURE		DECREASING PRESSURE/TEMPERATURE	
APPLIED	INDICATED	APPLIED	INDICATED
0	0	5000	5000
1250	1250	3750	3750
2500	2500	2500	2500
3750	3750	1250	1250
5000	5000	0	0

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237849

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION



Jo-De Equipment Rental Company, Inc.

BELLE CHASSE LA
394-0020
NEW IBERIA LA
364-0461

2624 ENGINEERS ROAD

BELLE CHASSE, LOUISIANA 70037
PHONE: (504) 394-4024

REPRODUCIBLE COPY

CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER
Model Number _____ Serial Number 211311 Range 0-150 TEMP.
Date of Calibration 10-2-97 Inspector Dan Rogers

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE		DECREASING PRESSURE/TEMPERATURE	
APPLIED	INDICATED	APPLIED	INDICATED
33'	33'	150'	150'
50'	50'	125'	125'
75'	75'	100'	100'
100'	100'	75'	75'
125'	125'	50'	50'
150'	150'	33'	33'

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN: 2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN: 631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION

BEST AVAILABLE COPY

HYDROSTATIC TEST CERTIFICATION DATA
 LINES FALLING WITHIN D.O.T. LIQUID AND GAS PIPELINE REGULATIONS
 HELL PIPE LINE CORPORATION

JOB NO.	116000
ES NO.	96-062

• Instructions for Completion on Reverse Side.

PIPELINE 14" GENESIS OIL PIPE LINE	LOCATION CODE ST301B
SECTION TESTED FROM STATION SURVEY TEST # 03 14" RECEIVER	TO STATION SURVEY TEST SITE LOCATION BAY/mosby BELLE CHASSE LA

LINE HISTORY			
DATE CONSTRUCTED 4-1-98	O.D. 18"-14"-12 3/4"-2 3/8"	TYPE (Seamless, ERW, etc.) SEAMLESS	
SPEC. MIN. YIELD WALL 0750-562-688-5186	ANSI RATING 900 ± 1500	VALVES	FLANGES 900 ± 1500

DATE TEST PERFORMED 4-4-98			
-------------------------------	--	--	--

DATA CHECKLIST	REMARKS		
TEST MEDIUM WATER			
TESTED BY: BAY/mosby			
TEST PRESSURE - MINIMUM 3240			
LIST PRINCIPAL TEST EQUIPMENT (Pump, Tester, Recorder, etc.)			
AVERAGE TEMPERATURE OF TESTING MEDIUM 68.83			
PRESSURE AT LOWEST ELEVATION POINT IN THE SECTION, INCLUDING ELEVATION AND LOCATION. 3290			
PRESSURE AT HIGHEST ELEVATION POINT IN THE TEST SECTION, INCLUDING ELEVATION AND LOCATION. 3290			
TEST DURATION (including time started and completed)	DURATION 4 HOURS - 10 min	HOURS	
	STARTED 10:05	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	
	COMPLETED 2:15	<input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	
AHE PRESSURES CONTINUOUS? If not, explain. YES			
DESCRIPTION OF FACILITY TESTED. (Hwy-xing, River, Pump Station, Buried Line, etc.) 14" GENESIS RECEIVER PIPING ON SKID			
GENERAL COMMENTS			
SIGNATURE OF OPERATOR'S EMPLOYEE RESPONSIBLE FOR TEST		→ <i>MOS</i>	

ATTACHMENTS REQUIRED FOR EACH TEST

- 1) Dead Weight Tester Data.
- 2) Recording Gauge Charts.
- 3) Elevation profile of Line Indicating Test Site (Required If Elevation Difference Greater than 100').
- 4) Records of Failures (Remarks PL-318A).
- 5) Diagram, drawing or sketch.
- 6) Record of test data PL-318A

RETENTION: As long as Facility Tested is in Use.

DISTRIBUTION WITH ATTACHMENTS

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Hydrostatic Test Report

ATTACHMENT TO PL-318

SHELL JOB NO.	ES NO.
DATE PREPARED	PAGE
4-4-98	/ OF /

TEST SECTION	CONTRACTOR
14" RECEIVER PANS FOR GENESIS	BAY/MOSBY BILLIE, CLASSIC, LN

EQUIPMENT			
TYPE	MAKE	MODEL	SERIAL NO.
DEAD-WEIGHT TESTER	5000 K		338
AMBIENT TEMP RECORDER			
TEST MEDIUM TEMP RECORDER	BARTON		21131

Grauer

WINTER'S

GSK-8



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Jo-De Equipment Rental Company, Inc.

2624 ENGINEERS ROAD

BELLE CHASSE, LOUISIANA 70037
PHONE (504) 394-6024

CALIBRATION CERTIFICATE

Manufacturer Jo-De rental Type of Instrument Deadweight

Model Number Ref. Serial Number 338 Range 0-5000 psi

Date of Calibration 4/3/98 Inspector David Rogers

CALIBRATION

DAVID ROGERS

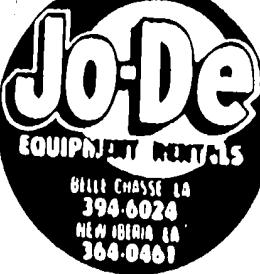
INCREASING PRESSURE/TEMPERATURE			DECREASING PRESSURE/TEMPERATURE		
APPLIED	INDICATED		APPLIED	INDICATED	
0	0		5000	5000	
1250	1250		3750	3750	
2500	2500		2500	2500	
3750	3750		1250	1250	
5000	5000		0	0	

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN: 2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN: 631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION



Jo-De Equipment Rental Company, Inc.

2024 ENGINEERS ROAD

BELLE CHASSE LOUISIANA 70030
PHONE 304-394-6024

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CALIBRATION CERTIFICATE

Manufacturer Jo-De rental Type of Instrument Gauge
Model Number Winkler Serial Number G5K-8 Range 0-5000 psi
Date of Calibration 4/3/98 Inspector David Rogers

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE			DECREASING PRESSURE/TEMPERATURE		
APPLIED	INDICATED		APPLIED	INDICATED	
0	0		5000	5000	
1250	1250		3750	3750	
2500	2500		2500	2500	
3750	3750		1250	1250	
5000	5000		0	0	

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VIX 802-0064 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION



Jo-De Equipment Rental Company, Inc.

BELLE CHASSE LA
394-0024
NEW IBERIA LA
364-0461

2624 ENGINEERS ROAD

BELLE CHASSE, LOUISIANA 70017
PHONE: (504) 394-0024

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CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER

Model Number _____ Serial Number 211311 Range 0-150 TEMP.

Date of Calibration 10-2-97 Inspector David Rogers

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE		DECREASING PRESSURE/TEMPERATURE	
APPLIED	INDICATED	APPLIED	INDICATED
33'	33'	150'	150'
50'	50'	125'	125'
75'	75'	100'	100'
100'	100'	75'	75'
125'	125'	50'	50'
150'	150'	33'	33'

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION



Jo-De Equipment Rental Company, Inc.

1311 ENGINEERS ROAD
BELLE CHASSE, LOUISIANA 70011
PHONE: (504) 384-4024

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CALIBRATION CERTIFICATE

Manufacturer BARTON Type of Instrument RECORDER

Model Number Serial Number 211311 Range 0-5000 ps.

Date of Calibration 10-2-97 Inspector DR

CALIBRATION

DAVID ROGERS

INCREASING PRESSURE/TEMPERATURE		DECREASING PRESSURE/TEMPERATURE	
APPLIED	INDICATED	APPLIED	INDICATED
0	0	5000	5000
1250	1250	3750	3750
2500	2500	2500	2500
3750	3750	1250	1250
5000	5000	0	0

THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED DEVICE HAS BEEN INSPECTED AND TESTED AGAINST THE FOLLOWING STANDARD:

PRESSURE VTX 802-0084 SN:2790 NIST REFERENCE P-7819

TEMPERATURE 600-2830 SN:631686 NIST REFERENCE 237489/237840

TESTING WAS CONDUCTED WITH THE DEVICE IN THE VERTICAL POSITION
 HORIZONTAL POSITION

Two Shell Plaza
P.O. Box 2648
Houston, TX 77252-2648

November 4, 1998

VIA AIRBORNE EXPRESS



Mr. Frank Patton, Jr. (MS5232)
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Dear Mr. Patton:

**OFFSHORE LOUISIANA
GENESIS 14-INCH OIL PIPELINE
GC205"SPAR" TO ST 301 "B"
ROW: OCS-G18796, SEGMENT NO. 11471; JOB NO. 116000
RETURN RECEIPTS**

In accordance with the Minerals Management Service requirement, I enclose a copy of the return receipts evidencing delivery of the as-built drawings to the operators effected by the deviation in the pipeline route as granted. If you need additional information, please contact me at 713/ 241-6586.

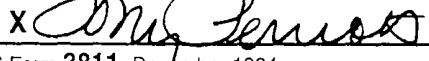
Yours very truly,

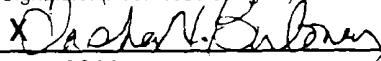
A handwritten signature in cursive ink that appears to read "G. W. Sanders".

G. W. Sanders
Sr. Land Agent

AJB:rms

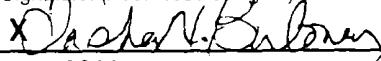
Enclosure

SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Mr. Greg Guidry (OSS 2654A) Shell Deepwater Prod. Inc. P. O. Box 60834 New Orleans, LA 70161		4a. Article Number Z-070-636-779 4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
		7. Date of Delivery OCT 30 1998
5. Received By: (Print Name)		8. Addressee's Address (Only if requested and fee is paid)
6. Signature: (Addressee or Agent) 		

SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Ms. E. B. Mendel-John Chevron U.S.A. Inc. 935 Gravier Street New Orleans, LA 70112		4a. Article Number Z 070 636 780 4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
		7. Date of Delivery  10-29-98
5. Received By: (Print Name)		6. Addressee's Address (Only if requested and fee is paid)
6. Signature: (Addressee or Agent) 		

Thank you for using Return Receipt Service.

THREE COPY
ONE COPY

SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
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		7. Date of Delivery  10-29-98
5. Received By: (Print Name)		6. Addressee's Address (Only if requested and fee is paid)
6. Signature: (Addressee or Agent) 		

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

PS Form 3811, December 1994 102595-98-B-0229 Domestic Return Receipt
0CS-G 18796

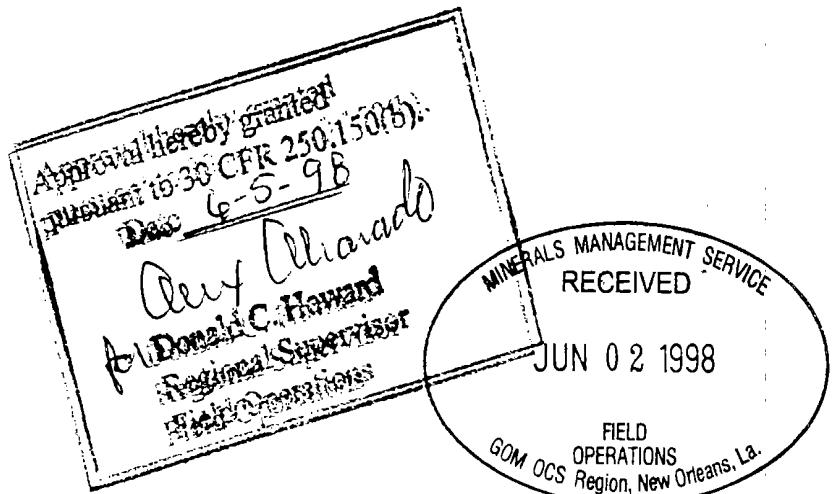
MS>
Shell Pipe Line Corporation

Row OCS-G 18796
Two Shell Plaza
PO Box 2648
Houston, TX 77252-2648

June 2, 1998

HAND DELIVERED

Mr. Alex Alvarado (5232)
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394



Dear Mr. Alvarado:

**OFFSHORE LOUISIANA
GENESIS 14-INCH OIL PIPELINE
GREEN CANYON 205 SPAR TO SOUTH TIMBALIER 301 "B"
OCS-G 18796, SEGMENT NO. 11471; JOB NO. 116000
ADDENDUM #1 TO ROW PERMIT**

Shell Pipe Line Corporation respectfully requests modification of the captioned permit to change the Maximum Allowable Operating Pressure from 2160 PSIG to 2170 PSIG for the reasons described in Attachment "A" enclosed herewith. If you need any additional information, please call me at 713-241-6586.

Very truly yours,

G. W. Sanders
Attorney-in-Fact

GWS:jc

Attachment

ATTACHMENT "A"

ROW OCS-G 18796, Seg. No. 11471 - "Request For Increase of MAOP"

The proposed system MAOP of 2170 psig, as requested in our permit application, is based on all system valves and fittings being selected and applied in accordance to the requirements of API 6D Alternate, where valve materials meeting the requirements of specification ASTM A350 allow the use of ASTM Class 1.1 pressure ratings, per ANSI B16.5 - 1996 (ref: Para. 2.2.c).

We suspect that the MMS assigned the pipeline a 2160 MAOP based upon the API 6D spec. valves used in the pipeline. API 6D utilizes a MAOP of 2160 psig at our operating temperatures unless the valve is manufactured of a material that allows the use of ANSI B16.5 flange criteria for pressure rating. We have used valves that allow the use of ANSI B16.5 criteria.

The design pressure for the pipeline was calculated using linear interpolation in accordance with paragraph 2.1 of ASME B16.5. For 1.1 Materials Group Carbon Steels (including ASTM A350 LF2 forgings) per ASME 16.5, the MAOP is interpolated between the following two points for 900 series equipment:

2220 psig @ 100 deg F
2025 psig @ 200 deg F

The resulting MAOP (rounded down to the nearest 10) is 2170 psig for our design temperature of 125 deg F.

TEXT AVAILABLE COPY