

HOBBS

AUG 16 2018

Form 3160-3  
(March 2012)

RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

Carlsbad Field Office  
OCD HobbsFORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014MIN F  
SURF S

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM014164
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC (229137)		7. If Unit or CA Agreement, Name and No.
3a. Address 600 West Illinois Ave Midland TX 79701		8. Lease Name and Well No. (322259) FASCINATOR FEDERAL COM 604H
3b. Phone No. (include area code) (432)683-7443		9. API Well No. 30-025-45110
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NWNW / 210 FNL / 360 FWL / LAT 32.19517 / LONG -103.413996 At proposed prod. zone SWSW / 200 FSL / 450 FWL / LAT 32.167275 / LONG -103.413639		10. Field and Pool, or Exploratory (98096) WILDCAT / BONE SPRING WOLF BONE
14. Distance in miles and direction from nearest town or post office* 12 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 30 / T24S / R35E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet	16. No. of acres in lease 1961.36	17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, 2974 feet applied for, on this lease, ft.	19. Proposed Depth 12652 feet / 22476 feet	20. BLM/BIA Bond No. on file FED: NMB000215
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3372 feet	22. Approximate date work will start* 07/01/2018	23. Estimated duration 30 days

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature (Electronic Submission)	Name (Printed/Typed) Mayte Reyes / Ph: (575)748-6945	Date 03/27/2018
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 08/02/2018
Title Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

GCP Rec 08/16/18

APPROVED WITH CONDITIONS  
Approval Date: 08/02/2018

\*(Instructions on page 2)

KZ  
08/17/18

Double Sided

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications.

Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN-HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

1. SHL: NWNW / 210 FNL / 360 FWL / TWSP: 24S / RANGE: 35E / SECTION: 30 / LAT: 32.19517 / LONG: -103.413996 ( TVD: 0 feet, MD: 0 feet )  
PPP: SWNW / 1320 FNL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 30 / LAT: 32.177475 / LONG: -103.413664 ( TVD: 12604 feet, MD: 18600 feet )  
PPP: NWSW / 2640 FSL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 31 / LAT: 32.17396 / LONG: -103.413656 ( TVD: 12620 feet, MD: 19900 feet )  
PPP: NWNW / 0 FNL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 31 / LAT: 32.18099 / LONG: -103.413673 ( TVD: 12587 feet, MD: 17300 feet )  
PPP: NWNW / 330 FNL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 30 / LAT: 32.19482 / LONG: -103.413706 ( TVD: 12450 feet, MD: 12650 feet )  
PPP: NWSW / 2640 FSL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 30 / LAT: 32.188369 / LONG: -103.413691 ( TVD: 12554 feet, MD: 14650 feet )  
BHL: SWSW / 200 FSL / 450 FWL / TWSP: 24S / RANGE: 35E / SECTION: 31 / LAT: 32.167275 / LONG: -103.413639 ( TVD: 12652 feet, MD: 22476 feet )

### BLM Point of Contact

Name: Priscilla Perez

Title: Legal Instruments Examiner

Phone: 5752345934

Email: pperez@blm.gov

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## **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Application Data Report

08/03/2018

APD ID: 10400028755

Submission Date: 03/27/2018

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

Well Type: OIL WELL

Well Work Type: Drill



[Show Final Text](#)

### Section 1 - General

APD ID: 10400028755

Tie to previous NOS?

Submission Date: 03/27/2018

BLM Office: CARLSBAD

User: Mayte Reyes

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM014164

Lease Acres: 1961.36

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: COG OPERATING LLC

Operator letter of designation:

### Operator Info

Operator Organization Name: COG OPERATING LLC

Operator Address: 600 West Illinois Ave

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)683-7443

Operator Internet Address: RODOM@CONCHO.COM

### Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILDCAT

Pool Name: BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:  
FASCINATOR FEDERAL COM  
Number of Legs:

Number: 604H AND 706H

Well Class: HORIZONTAL

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 12 Miles

Distance to nearest well: 2974 FT

Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: COG\_Fascinator\_604H\_C102\_20180327084654.pdf

Well work start Date: 07/01/2018

Duration: 30 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	210	FNL	360	FWL	24S	35E	30	Aliquot NWN W	32.19517	- 103.4139 96	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	337 2	0	0
KOP Leg #1	210	FNL	360	FWL	24S	35E	30	Aliquot NWN W	32.19517	- 103.4139 96	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	337 2	0	0
PPP Leg #1	264 0	FSL	450	FWL	24S	35E	30	Aliquot NWS W	32.18836 9	- 103.4136 91	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 918 2	146 50	125 54



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Drilling Plan Data Report

08/03/2018

APD ID: 10400028755

Submission Date: 03/27/2018

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes

[Show Final Text](#)

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	UNKNOWN	3272	0	0		NONE	No
2	RUSTLER	2168	1104	1104		NONE	No
3	TOP SALT	1971	1301	1301	SALT	NONE	No
4	BOTTOM SALT	-1877	5149	5149	ANHYDRITE	NONE	No
5	LAMAR	-2203	5475	5475	LIMESTONE	NATURAL GAS,OIL	No
6	BELL CANYON	-2226	5498	5498		NONE	No
7	CHERRY CANYON	-3201	6473	6473		NATURAL GAS,OIL	No
8	BRUSHY CANYON	-4809	8081	8081		NATURAL GAS,OIL	No
9	BONE SPRING LIME	-6052	9324	9324	SANDSTONE	NATURAL GAS,OIL	No
10	UPPER AVALON SHALE	-6402	9674	9674		NATURAL GAS,OIL	No
11	---	-6643	9915	9915		NATURAL GAS,OIL	No
12	BONE SPRING 1ST	-7211	10483	10483		NATURAL GAS,OIL	No
13	BONE SPRING 2ND	-7802	11148	11148		NATURAL GAS,OIL	No
14	BONE SPRING 3RD	-8867	12139	12139		NATURAL GAS,OIL	Yes
15	WOLFCAMP	-9297	12569	12569	SHALE	NATURAL GAS,OIL	No

### Section 2 - Blowout Prevention

**Operator Name:** COG OPERATING LLC

**Well Name:** FASCINATOR FEDERAL COM

**Well Number:** 604H

**Pressure Rating (PSI):** 10M

**Rating Depth:** 12652

**Equipment:** Annular, Blind Ram, Pipe Ram. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

**Choke Diagram Attachment:**

COG\_Fascinator\_604H\_10M\_Choke\_20180323083537.pdf

**BOP Diagram Attachment:**

COG\_Fascinator\_604H\_10M\_BOP\_20180323083559.pdf

COG\_Fascinator\_604H\_Flex\_Hose\_20180323083614.pdf

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**Pressure Rating (PSI):** 5M

**Rating Depth:** 12140

**Equipment:** Annular. Accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

**Choke Diagram Attachment:**

COG\_Fascinator\_604H\_5M\_Choke\_20180323083453.pdf

**BOP Diagram Attachment:**

COG\_Fascinator\_604H\_5M\_BOP\_20180323083500.pdf

COG\_Fascinator\_604H\_Flex\_Hose\_20180323083517.pdf

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**Operator Name:** COG OPERATING LLC

**Well Name:** FASCINATOR FEDERAL COM

**Well Number:** 604H

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1190	0	1190	-9411	-10581	1190	J-55	54.5	STC	2.12	5.92	DRY	7.93	DRY	7.93
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	12140	0	12140	-9411	-21491	12140	HCL-80	47	OTHER - BTC	1.45	1.03	DRY	1.97	DRY	1.97
3	PRODUCTION	8.5	5.5	NEW	API	N	0	22476	0	22476	-9411	-29318	22476	P-110	23	OTHER - BTC	1.77	2.09	DRY	2.49	DRY	2.49

#### Casing Attachments

**Casing ID:** 1      **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

COG\_Fascinator\_604H\_Casing\_Plan\_20180323083652.pdf

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

#### Casing Attachments

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Fascinator\_604H\_Casing\_Plan\_20180323083644.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Fascinator\_604H\_Casing\_Plan\_20180323083637.pdf

#### Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1190	520	1.75	13.5	910	50	Class C	4% Gel
SURFACE	Tail		0	1190	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead		0	1214 0	1000	2.8	11	2800	50	Lead: NEOCEM	As needed
INTERMEDIATE	Tail		0	1214 0	300	1.1	16.4	330	50	Class H	As needed
PRODUCTION	Lead		0	2247 6	400	2	12.7	800	35	Lead: 35:65:6 H BLEND	As needed

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		0	2247 6	2850	1.24	14.4	3534	35	Tail: 50:50:2 Class H Blend	As needed

### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1214 0	2247 6	OIL-BASED MUD	10.5	12.5							OBM
0	1190	OTHER : FW Gel	8.4	8.6							FW Gel
1190	1214 0	OTHER : Diesel Brine Emulsion	8.6	9.4							Diesel Brine Emulsion

**Operator Name:** COG OPERATING LLC

**Well Name:** FASCINATOR FEDERAL COM

**Well Number:** 604H

## Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

None planned

**List of open and cased hole logs run in the well:**

CNL,GR

**Coring operation description for the well:**

None planned

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 8225

**Anticipated Surface Pressure:** 5441.56

**Anticipated Bottom Hole Temperature(F):** 180

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

COG\_Fascinator\_604H\_H2S\_Schem\_20180323084203.pdf

COG\_Fascinator\_604H\_H2S\_SUP\_20180323084210.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

COG\_Fascinator\_604H\_AC\_Rpt\_20180323084231.pdf

COG\_Fascinator\_604H\_Direct\_Plan\_20180323084239.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

COG\_Fascinator\_604H\_Drill\_Prog\_20180716083103.pdf

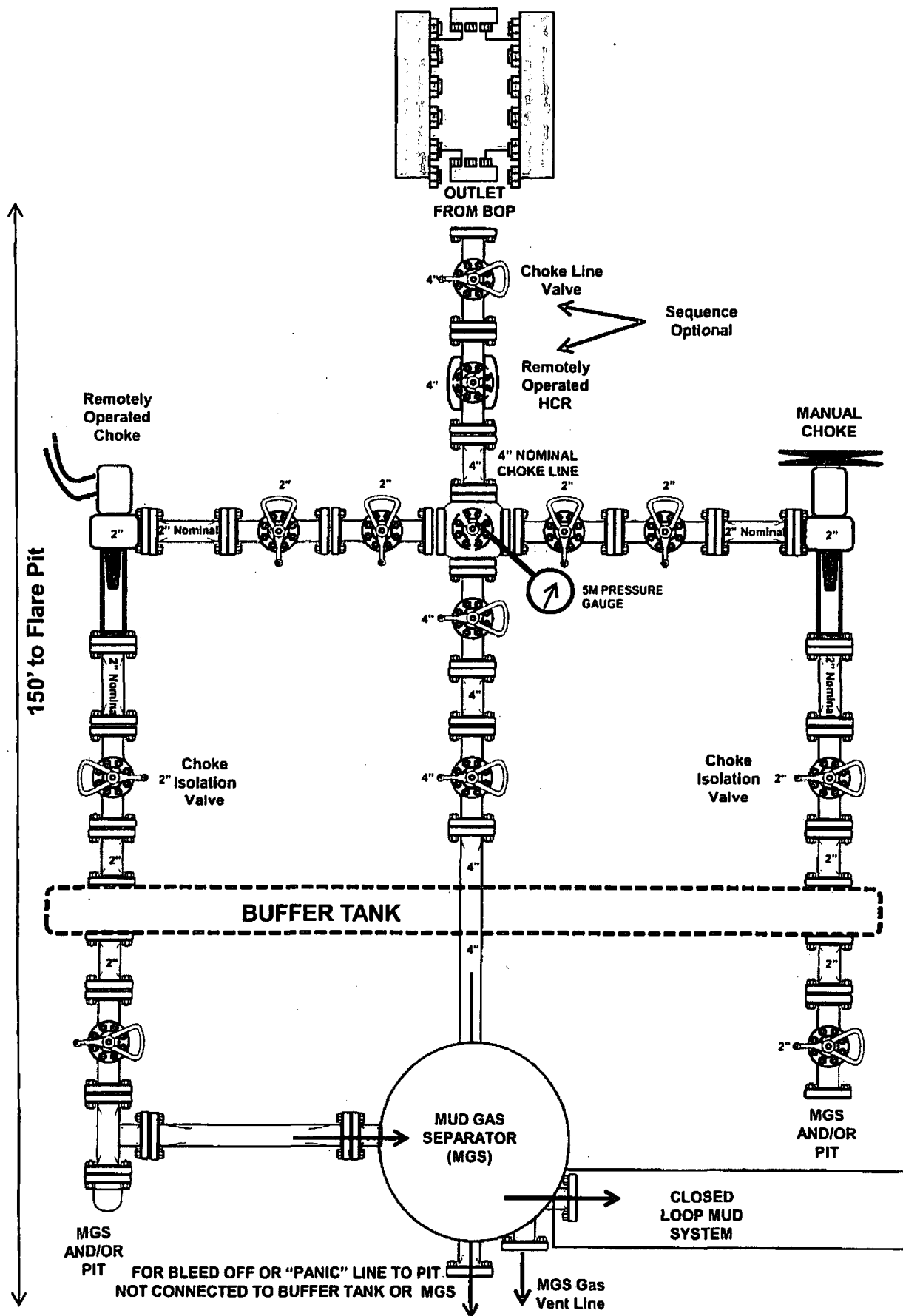
COG\_Fascinator\_604H\_GCP\_20180716083110.pdf

**Other Variance attachment:**

COG\_5M\_Annular\_Variance\_WCP\_20180322084749.pdf

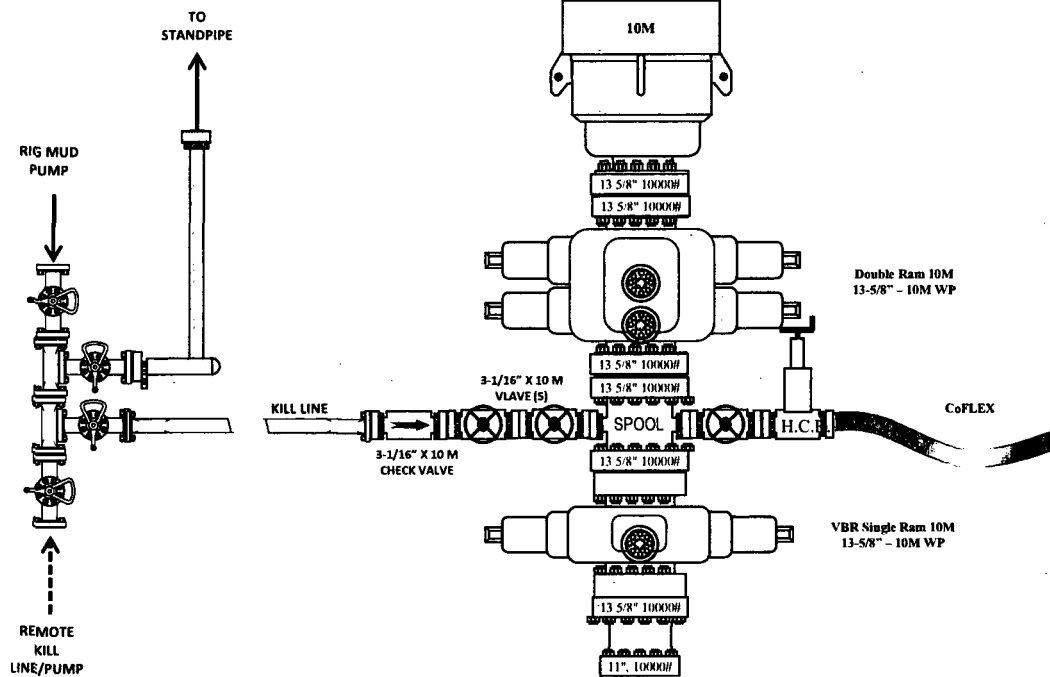


## 5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)

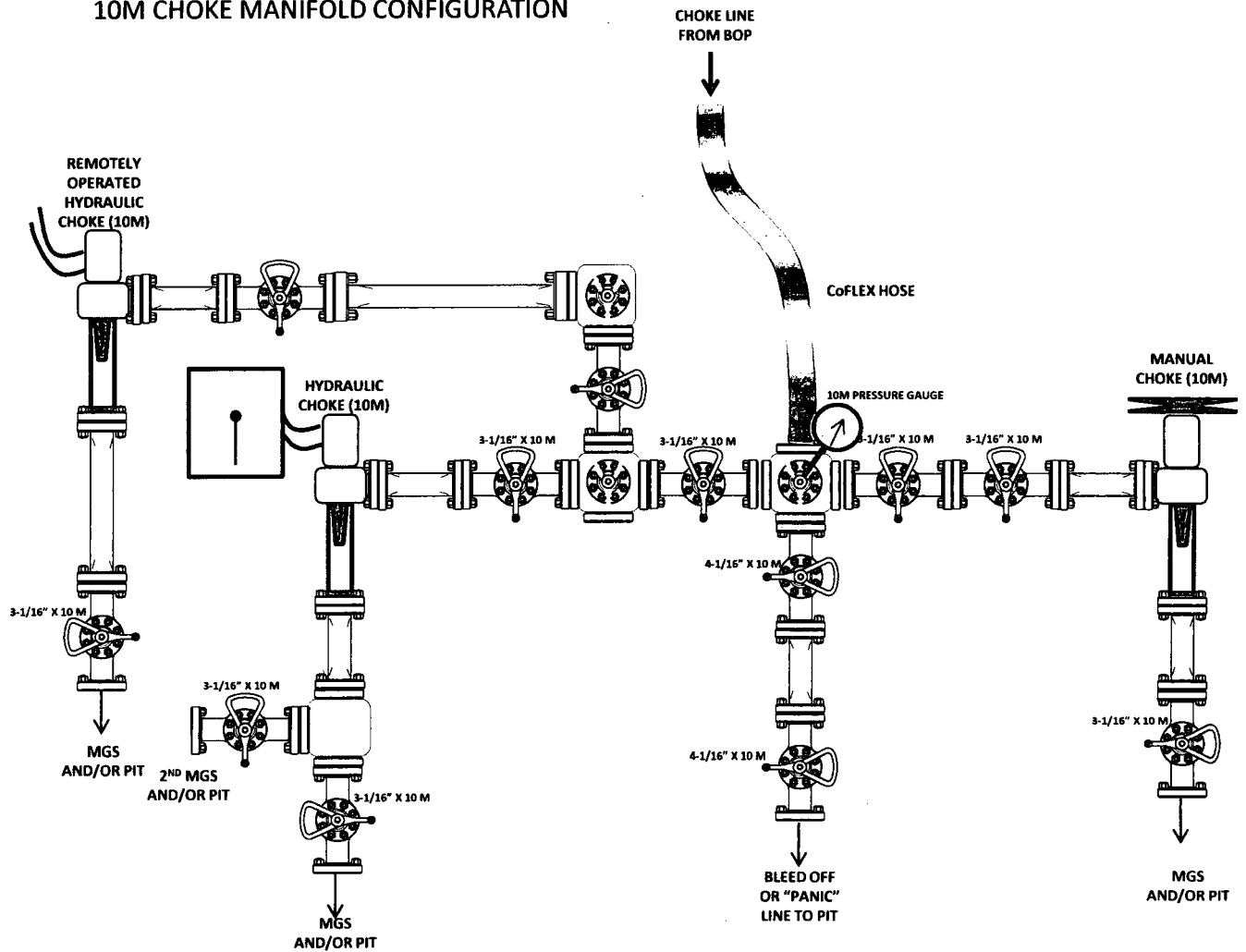


## 10M BOP Stack

### 10M REMOTE KILL SCHEMATIC

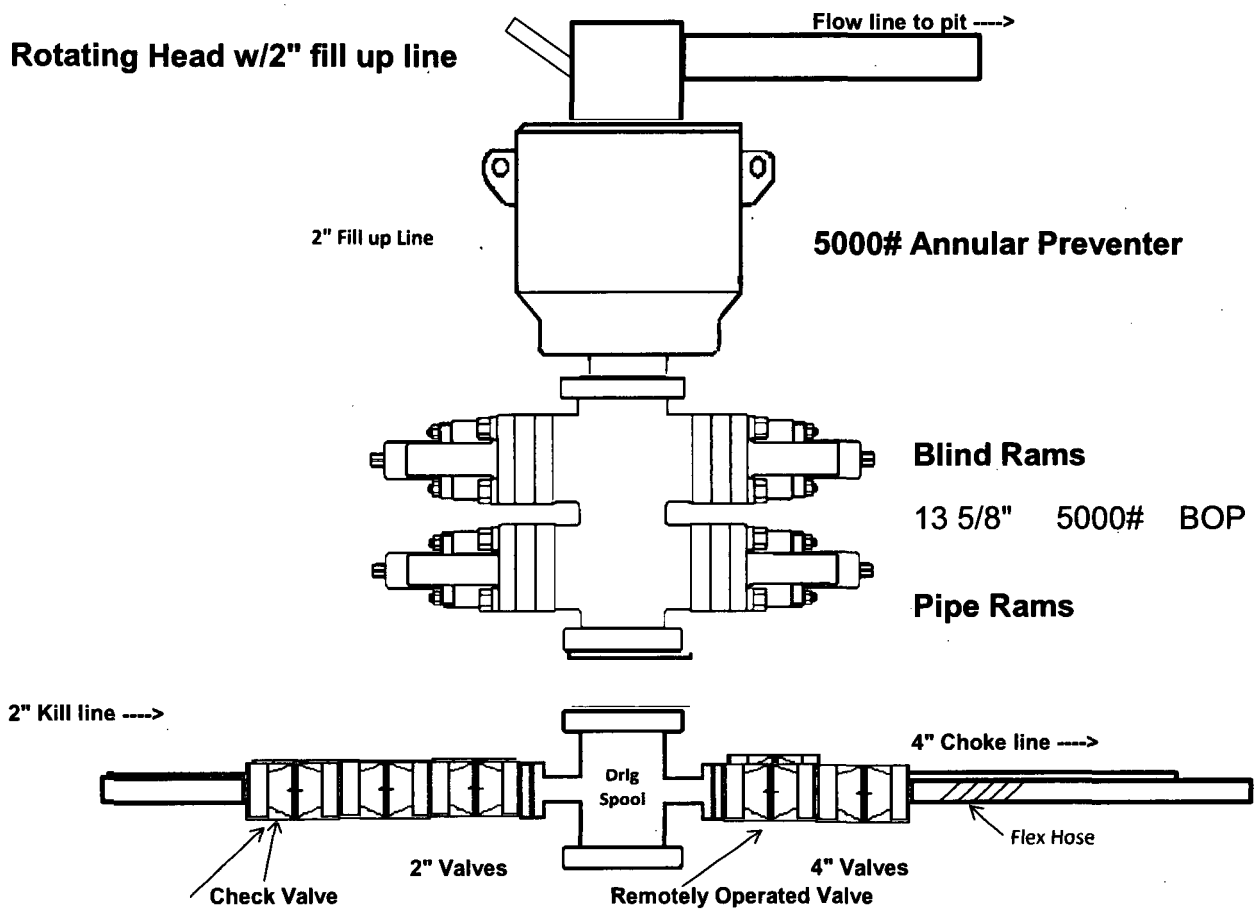


# 10M CHOKE MANIFOLD CONFIGURATION





## 5,000 psi BOP Schematic





ContiTech Fluid Technology

COPY

ContiTech Oil & Marine Corp. # 11535 Brittmoore Park Dr., Houston, TX 77041-8916 USA		<b>Delivery Note</b>	
NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764		Document No.	83854547
		Document Date	06/28/2017
Transport-Details - Shipping		Customer Number	11721
		Customer VAT No.	
		Supplier Number	
		N° EORI:	FR4102795330002
		Purchase Order No.	13999606
Conditions Shipping Conditions 0 days Inco Terms EXW Houston Ex Works		Purchase Order Date	06/26/2017
		Sales Order Number	974000
		Sales Order Date	06/26/2017
		Unloading Point	
		Page 1 of 2	
		<del>Weights (Gross / Net)</del>	
		Total Weight	1,700.000 LB
		Net Weight	1,700.000 LB
 Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com  PR#14438486  Rig: X31			
<b>Item</b>	<b>Material/Description</b>	<b>Quantity</b>	<b>Weight</b>
10	OORECERTIFY	1 PC	1,700.000 LB
Recertification of HP Hoses Serial#62205			
3" ID 10K Choke and Kill Hose x 35ft OAL			
End 1: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange			
End 2: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange			
c/w BX155 ring groove SS Inlay each end			
Standard: API Spec 16C - Monogrammed			
Working Pressure: 10,000psi			
Test Pressure: 15,000psi			
Asset #: 66-0945			
Inspection & Certification includes:			
External inspection of the hose & couplings			
Internal boroscopic inspection of hose liner			
Hydrostatic pressure test of hose assembly			

ContiTech Oil & Marine Corp.  
11535 Brittmoore Park Drive  
Houston, TX 77041  
USAPhone: (832)-327-0141  
Fax: (832)-327-0148  
www.contitech-oil-gas.comManaging Director  
(President)  
Zuzana CzovekBank: Wells Fargo Bank, N.A.,  
420 Montgomery Street, San Francisco, CA 94163  
Account #: 4942692294  
ABA/Routing #: 121000248, SWIFT #: WFBUS65



<b>Conditions</b> Shipping Conditions    0 days Inco Terms            EXW Houston Ex Works		<b>Delivery Note</b> Document No.        83854547 Document Date      06/28/2017 Page 2 of 2	
<p>Repair of any external damage to hose body and end connections (limited to minor repairs) Clean &amp; protect end connections Inspection Report</p> <p>Disposal of hose assembly if hose fails inspection and recertification process</p> <p>Please Flush Hoses before sending them to our Facility.</p> <p>Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com</p> <p>PR#14438486</p> <p>Rig: X31</p>			
<b>Inner packages</b>			
<b>Quantity Packaging</b>		<b>Material</b>	<b>Charge</b>
1	420"X15"X15" -Loose	OORECERTIFY	1
Package number    123198224			

# Hydrostatic Test Certificate



ContiTech

Certificate Number 4000	COM Order Reference 974000	Customer Name/Address Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No: 13999606		
Project:		
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 6/27/17	Accepted by Contitech Corporation

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to Contitech Oil & Marine Corporation.

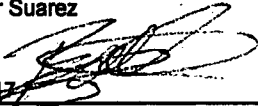
Item	Description	Quantity	Part Number	Pressure (psi)	Test Duration (min)	Test Temp (°F)	Test Media	Test Result
------	-------------	----------	-------------	----------------	---------------------	----------------	------------	-------------

20	RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL	1	62205	10,000 psi	15,000 psi	60	
Asset # 66-0845							

# Certificate of Conformity



ContiTech

<b>Certificate Number:</b> 4000	<b>COM Order Reference</b> 974000	<b>Customer Name/Address</b> Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
<b>Customer Purchase Order No:</b> 13999606		
<b>Project:</b>		
<b>ContiTech Oil &amp; Marine Corp.</b> 11535 Brittmoore Park Drive Houston, TX 77041 USA	<b>Signed:</b> Roger Suarez  <b>Date:</b> 6/27/13	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Description	Quantity	Part Number	Specification
------	-------------	----------	-------------	---------------

20

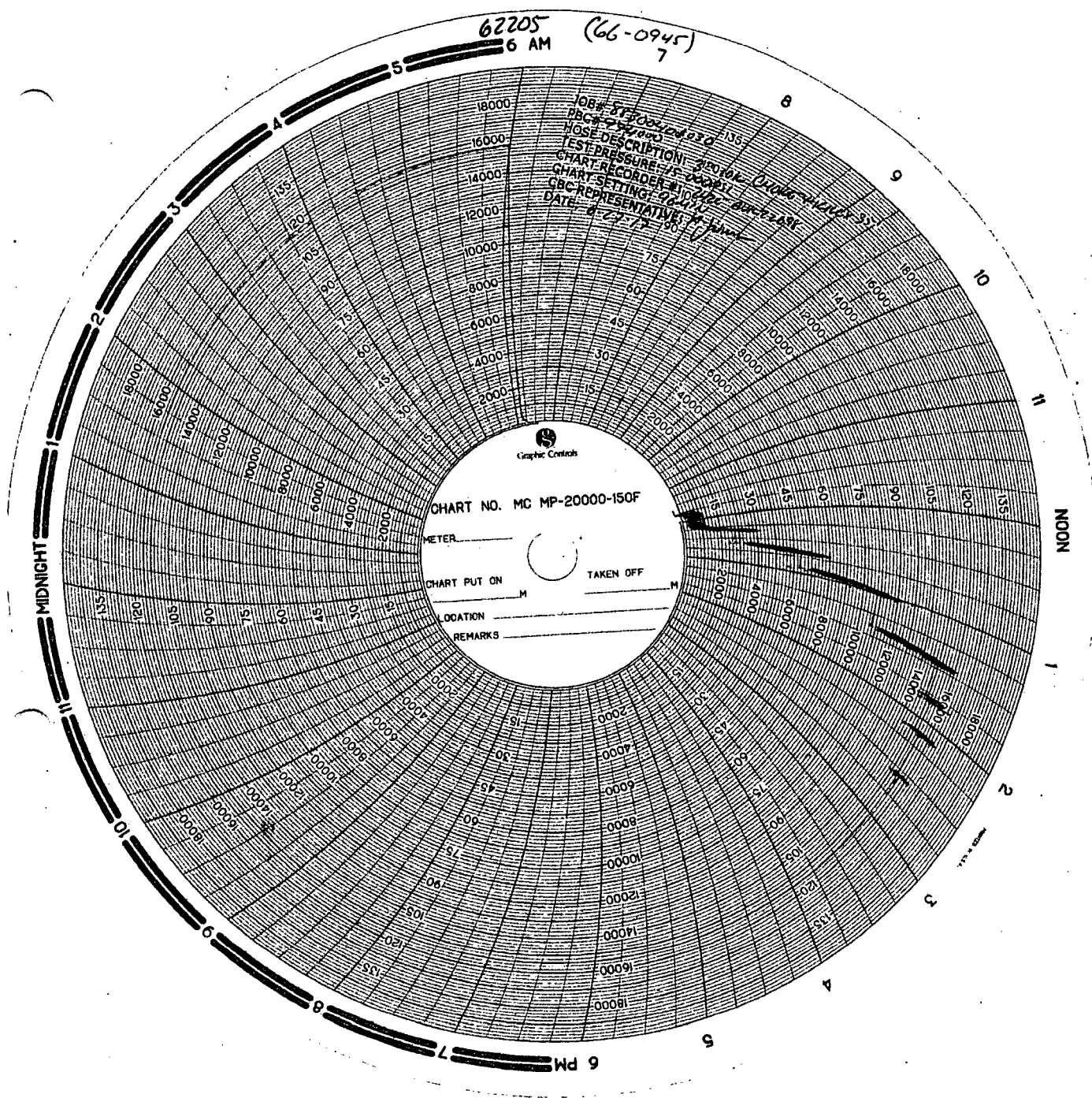
RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL

1

62205

ContiTech Standard

Asset # 66-0945



## Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
Nabors	13999606	974000	A. Jaimes	06/27/2017

Hose Manufacturer	Contitech Rubber Industrial
-------------------	-----------------------------

Hose Serial #	62205 (66-0945)	Date of Manufacture	12/2011
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

### Connections

End A: 4.1/16" 10Kpsi API Spec 17D Swivel Flange	End B: 4.1/16" 10Kpsi API Spec 17D Swivel Flange
• Dents	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX155	Seal Face: BX155
Length Before Hydro Test: 35'	Length After Hydro test: 35'

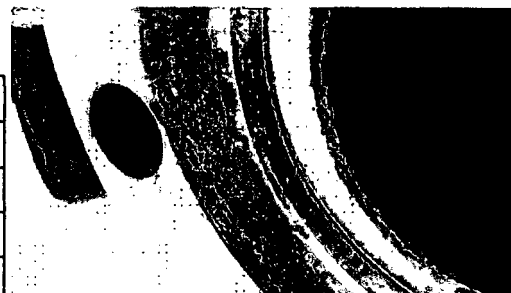
**Conclusion:** Hose #62205 passed the external inspection with no notable damage to the hose armor. The flange face on end A did have minor dents but did not affect the test outcome. It is advised that additional care be taken in order to avoid further damage to the flange face. Internal borescope of the hose showed no damage to the liner. Hose #62205 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62205 is suitable for continued service.

**Recommendations:** In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)  
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)  
Initial 5 years service: Major inspection  
2nd Major inspection: Following subsequent 3 year life cycle  
(Detailed description of test regime available upon request, QCP 206-1)

**\*\*NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.







<b>External Damage</b> <b>Pre - Hydro test</b>
End A has minor dents at the edge of the seal face but did not compromise the hydrostatic pressure test. Additional care should be take in order to avoid further damage



Issued By: Alejandro Jaimes  
Date: 6/27/2017

Checked By: Gerson Mejia-Lazo  
Date: 6/27/2017

Page 1 of 1  
QF97

(1) Ship-to party <b>NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764</b>		(2) Unloading point - storage location - usage	
(3) Delivery note no. <b>83854547</b> 		(4) Vendor address (short name, plant, ZIP, city) <b>ContiTech Oil &amp; Marine Corp. 11535 Brittmoore Park Drive Houston TX 77041-6916</b>	
(8) Supplier ref. no. <b>00RECERTIFY</b> 			
(9) Quantity <b>1</b> 		(5) Net weight <b>1,700 LB</b>	(6) Gross weight <b>1,700 LB</b>
		(7) Number of packages <b>1</b>	
(12) ContiTech Sales order no. <b>974000</b> 		(10) Description of delivery, service <b>Recertification of HP Hoses Se</b>	
		(13) Packing date <b>06/28/17</b>	(14) Engineering change status
(15) Package no. <b>123198224</b> 		(16) Customer PO no. <b>13999606</b> 	

Material label VDA 4902 Vers. 4

66-0945

62205



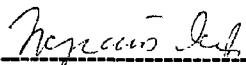
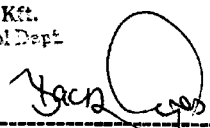


CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017

Page: 8 / 119

ContiTech

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 682	
PURCHASER: ContiTech Oil & Marine Corp.			P.O. N°: 4500984922		
CONTITECH RUBBER order N°: 987778		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 73981		NOMINAL / ACTUAL LENGTH: 13,72 m / 13,80 m			
W.P. 69,0 MPa 10000 psi		T.P. 103,5 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment ( 1 page )					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8077 8083		AISI 4130	
4 1/16" 10K API Swivel Flange end				AISI 4130	
Hub				AISI 4130	
				037184 85913	
				A0939Y	
Not Designed For Well Testing			API Spec 16 C 2 <sup>nd</sup> Edition– FSL2		
TAG NO.: 66-1486			Temperature rate: "B"		
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above Items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
03. October 2017.				ContiTech Rubber Industrial Kft. Quality Control Dept.  	

ATTACHMENT OF QUALITY CONTROL  
INSPECTION AND TEST CERTIFICATE  
No: 681, 682

CONTITECH RUBBER Industrial Kft.	No: QC-DB- 298 / 2017
	Page: 9 / 119

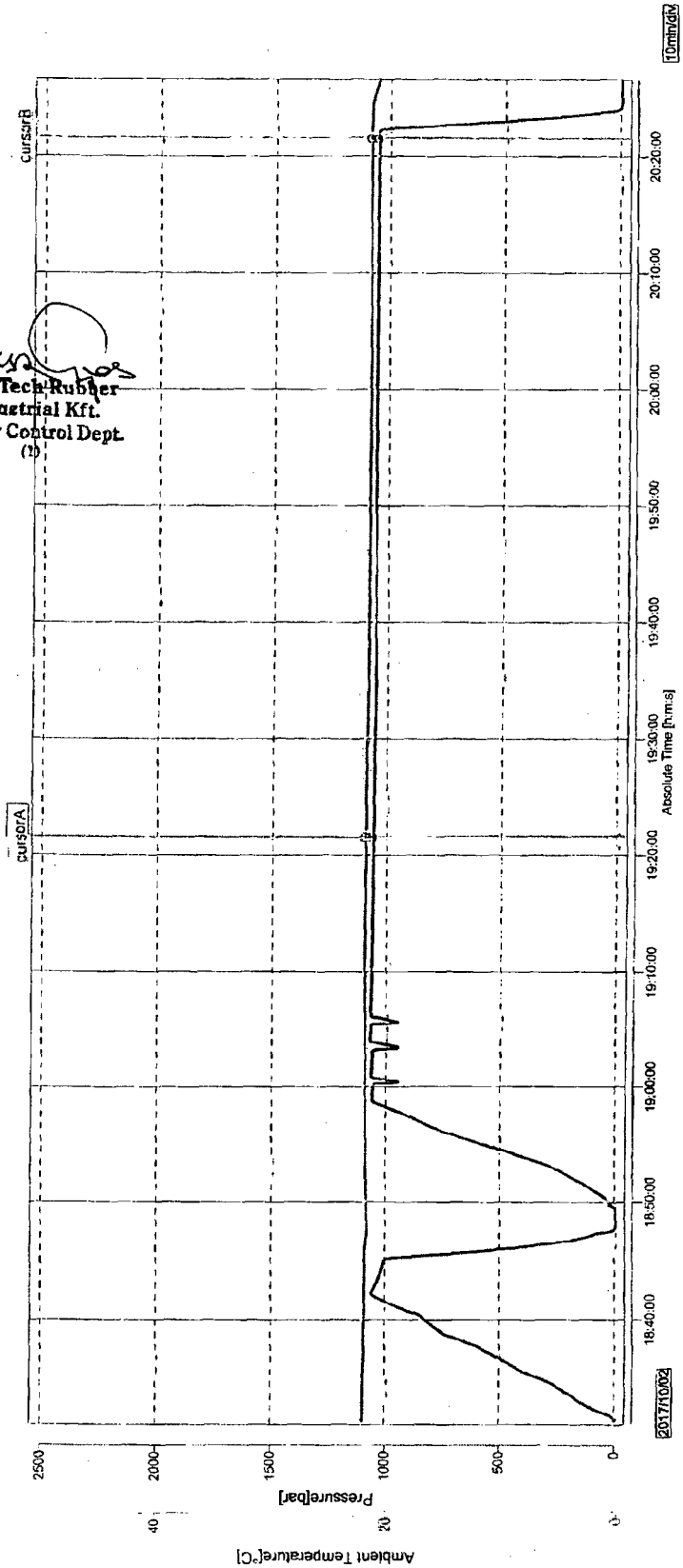
1/1

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 File Message : 73980,73981  
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 Serial No. : SSP606399  
 Data Count : 1386  
 Print Group: : Press-Temp  
 Print Range : 2017/10/02 18:31:10.000 - 2017/10/02 20:26:35.000  
 Comment : 142056635

Sampling Int. : 5.000 sec  
 Start Time : 2017/10/02 18:31:10.000  
 Stop Time : 2017/10/02 20:26:35.000

Data No.	Cursor A	Cursor B	Difference
Absolute Time	2017/10/02 19:21:30.000	2017/10/02 20:21:30.000	01:00:00.000
Tag Comment	Value A	Value B	Value B-A
Pressure[bar]	1064.15	1055.97	-8.18
Ambient Temperature[°C]	21.93	21.73	-0.20

*ContiTech Rubber*  
 Contitech Rubber  
 Industrial Kft.  
 Quality Control Dept.  
 (1)



## Hose Data Sheet

CRI Order No.	987778
Customer	ContiTech Oil & Marine Corp
Customer Order No	4500984922 CO987640
Item No.	10
Hose Type	Flexible Hose
<b>Standard</b>	<b>API SPEC 16C 2ND EDITION FSL2</b>
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID RING GROOVE SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID RING GROOVE SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	CONTINENTAL CONTITECH
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

  
ContiTech Rubber  
Industrial Kft.  
QC 2



ContiTech Fluid Technology

COPY

ContiTech Oil & Marine Corp. # 11535 Brittmoore Park Dr., Houston, TX 77041-6916 USA		<b>Delivery Note</b>	
NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764		Document No.	83854547
		Document Date	06/28/2017
		Customer Number	11721
		Customer VAT No.	
		Supplier Number	
		N° EORI:	FR4102795330002
		Purchase Order No.	13999606
		Purchase Order Date	06/26/2017
		Sales Order Number	974000
		Sales Order Date	06/26/2017
		Unloading Point	
Transport-Details - Shipping		Page 1 of 2	
Conditions			
Shipping Conditions		0 days	
Inco Terms		EXW Houston	
		Ex Works	
		<b>Weights (Gross / Net)</b>	
		Total Weight	1,700.000 LB
		Net Weight	1,700.000 LB
Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com  PR#14438486  Rig: X31			
<b>Item</b>	<b>Material/Description</b>	<b>Quantity</b>	<b>Weight</b>
10	OORECERTIFY	1 PC	1,700.000 LB
	Recertification of HP Hoses Serial#62205 3" ID 10K Choke and Kill Hose x 35ft OAL  End 1: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange End 2: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange c/w BX155 ring groove SS Inlay each end Standard: API Spec 16C - Monogrammed Working Pressure: 10,000psi Test Pressure: 15,000psi  Asset # 660945  Inspection & Certification includes: External inspection of the hose & couplings Internal boroscopic inspection of hose liner Hydrostatic pressure test of hose assembly		

ContiTech Oil & Marine Corp.  
11535 Brittmoore Park Drive  
Houston, TX 77041  
USAPhone: (832)-327-0141  
Fax: (832)-327-0148  
www.contitech-oil-gas.comManaging Director  
(President)  
Zuzana CzovekBank: Wells Fargo Bank, N.A.,  
420 Montgomery Street, San Francisco, CA 94103  
Account #: 4942692294  
ABA/Routing #: 121000248, SWIFT #: WFBUS6S



ContiTech Fluid Technology

<b>Conditions</b> Shipping Conditions 0 days Inco Terms EXW Houston Ex Works		<b>Delivery Note</b> Document No. 83854547 Document Date 06/28/2017 Page 2 of 2	
<p>Repair of any external damage to hose body and end connections (limited to minor repairs) Clean &amp; protect end connections Inspection Report</p> <p>Disposal of hose assembly if hose fails inspection and recertification process</p> <p>Please Flush Hoses before sending them to our Facility.</p> <p>Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com</p> <p>PR#14438486</p> <p>Rig: X31</p>			
<b>Inner packages</b>			
<b>Quantity Packaging</b>		<b>Material</b>	<b>Charge</b>
1	420"X15"X15" -Loose	OORECERTIFY	1
Package number 123198224			



# Hydrostatic Test Certificate

ContiTech

Certificate Number 4000	COM Order Reference 974000	Customer Name/Address Nabors Lux Finance 2 S.a.r.l. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No: 13999606	Project:	
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 6/27/17	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Description	Qty	Test Pressure	Test Temp	Test Date	Tested By	Witness
------	-------------	-----	---------------	-----------	-----------	-----------	---------

20

RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL

1

62205

10,000 psi

15,000 psi

60

Asset # 66-0945

# Certificate of Conformity



ContiTech

Certificate Number 4000	COM Order Reference 974000	Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No: 13999606		
Project:		
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 6/27/17	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Description	Quantity	Part Number	Material
------	-------------	----------	-------------	----------

20

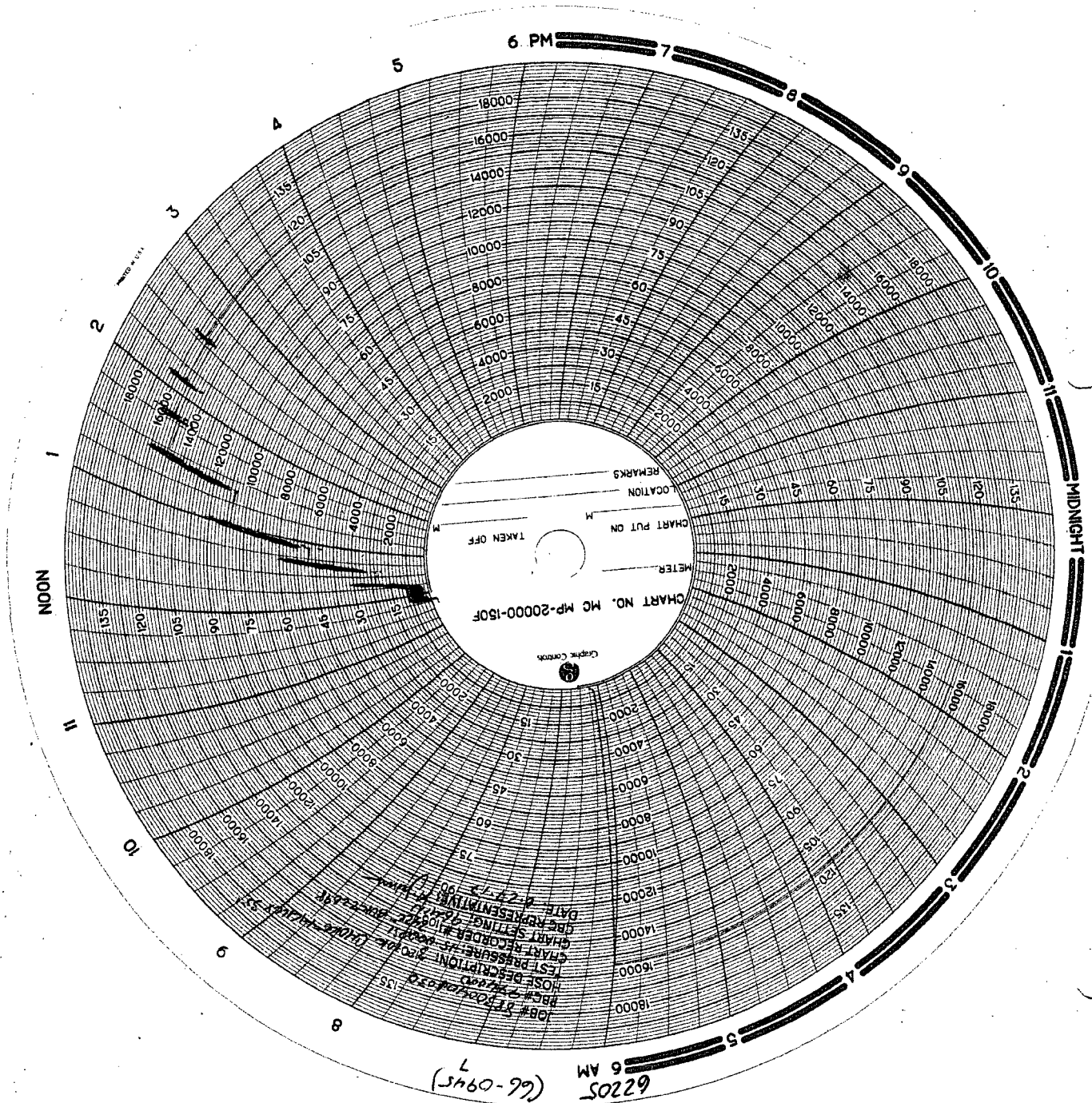
RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL

1

62205

ContiTech Standard

Assest # 66-0945





# Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
Nabors	13999606	974000	A. Jaimes	06/27/2017

Hose Manufacturer	Contitech Rubber Industrial
-------------------	-----------------------------

Hose Serial #	62205 (66-0945)	Date of Manufacture	12/2011
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

## Connections

End A: 4.1/16" 10Kpsi API Spec 17D Swivel Flange	End B: 4.1/16" 10Kpsi API Spec 17D Swivel Flange
• Dents	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX155	Seal Face: BX155
Length Before Hydro Test: 35'	Length After Hydro test: 35'

**Conclusion:** Hose #62205 passed the external inspection with no notable damage to the hose armor. The flange face on end A did have minor dents but did not affect the test outcome. It is advised that additional care be taken in order to avoid further damage to the flange face. Internal borescope of the hose showed no damage to the liner. Hose #62205 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62205 is suitable for continued service.

**Recommendations:** In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)  
 Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)  
 Initial 5 years service: Major inspection  
 2nd Major inspection: Following subsequent 3 year life cycle  
 (Detailed description of test regime available upon request, QCP 206-1)

**\*\*NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.







External Damage Pre - Hydro test
End A has minor dents at the edge of the seal face but did not compromise the hydrostatic pressure test. Additional care should be take in order to avoid further damage



Issued By: Alejandro Jaimes  
 Date: 6/27/2017

Checked By: Gerson Mejia-Lazo  
 Date: 6/27/2017

Page 1 of 1  
 QF97

(1) Ship to party <b>NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764</b>		(2) Unloading point - storage location - usage	
(3) Delivery note no. <b>83854547</b> 		(4) Vendor address (short name, plant, ZIP, city) <b>ContiTech Oil &amp; Marine Corp. 11535 Brittmoore Park Drive Houston TX 77041-6916</b>	
(8) Supplier ref. no. <b>00RECERTIFY</b> 			
(9) Quantity <b>1</b> 		(5) Net weight <b>1,700 LB</b>	(6) Gross weight <b>1,700 LB</b>
		(7) Number of packages <b>1</b>	
(12) ContiTech Sales order no. <b>974000</b> 		(10) Description of delivery, service <b>Recertification of HP Hoses Se</b>	
		(13) Packing date <b>06/28/17</b>	(14) Engineering change status
(15) Package no. <b>123198224</b> 		(16) Customer PO no. <b>13999606</b> 	

Material label VDA 4902 Vers. 4

66-0945

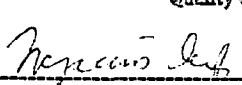
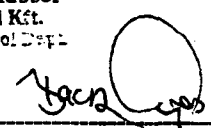
62205



CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017  
Page: 8 / 119

ContiTech

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 682	
PURCHASER: ContiTech Oil & Marine Corp.			P.O. N°: 4500984922		
CONTITECH RUBBER order N°: 987778		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 73981		NOMINAL / ACTUAL LENGTH: 13,72 m / 13,80 m			
W.P. 69,0 MPa 10000 psi		T.P. 103,5 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment ( 1 page )					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8077 8083		AISI 4130	
4 1/16" 10K API Swivel Flange end				AISI 4130	
Hub				AISI 4130	
				037184 85913	
				A0939Y	
Not Designed For Well Testing				API Spec 16 C 2 <sup>nd</sup> Edition- FSL2	
TAG NO.: 66-1486				Temperature rate: "B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
03. October 2017.				ContiTech Rubber Industrial Kft. Quality Control Dept.  	

ATTACHMENT OF QUALITY CONTROL  
INSPECTION AND TEST CERTIFICATE  
No: 681, 682

CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017  
Page: 9 / 119

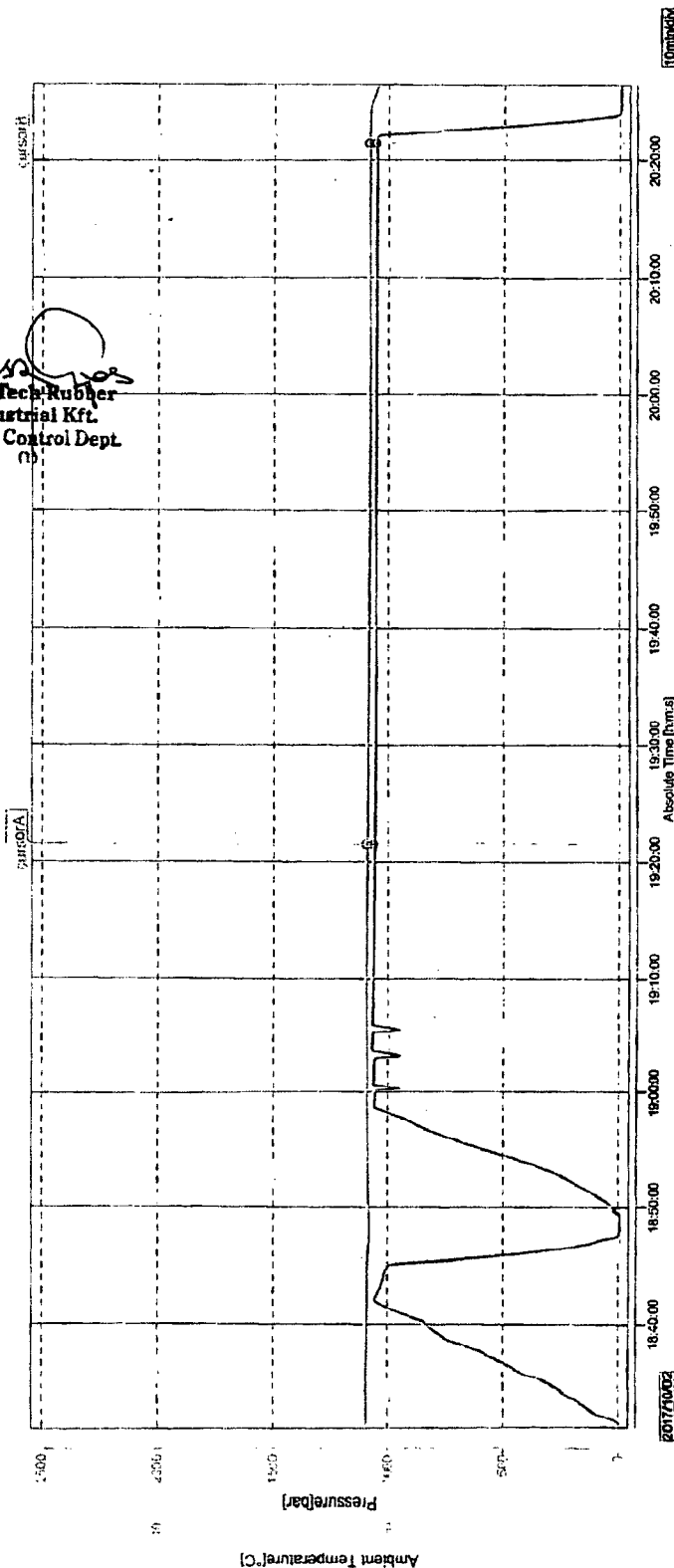
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Comment 142056635

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Start Time : 2017/10/02 18:31:10.000  
Stop Time : 2017/10/02 20:26:35.000

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Tag Comment	Value A	Value B	Value B-A
Pressure[bar]	1084.16	1055.97	-28.19
Ambient Temperature[°C]	21.83	21.73	-0.20

*ContiTech Rubber*  
ContiTech Rubber  
Industrial Kft.  
Quality Control Dept.





CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017  
Page: 21 / 119

ContiTech

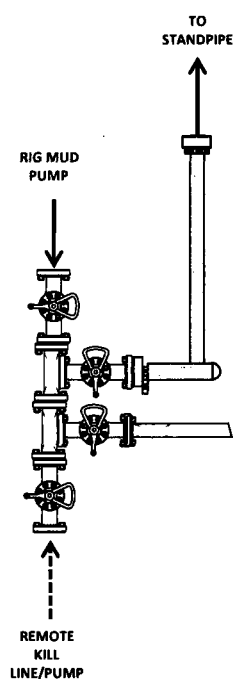
### Hose Data Sheet

CRI Order No.	987778
Customer	ContiTech Oil & Marine Corp
Customer Order No	4500984922 CO987640
Item No.	10
Hose Type	Flexible Hose
Standard	API SPEC 16C 2ND EDITION FSL2
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID RING GROOVE SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID RING GROOVE SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	CONTINENTAL CONTITECH
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

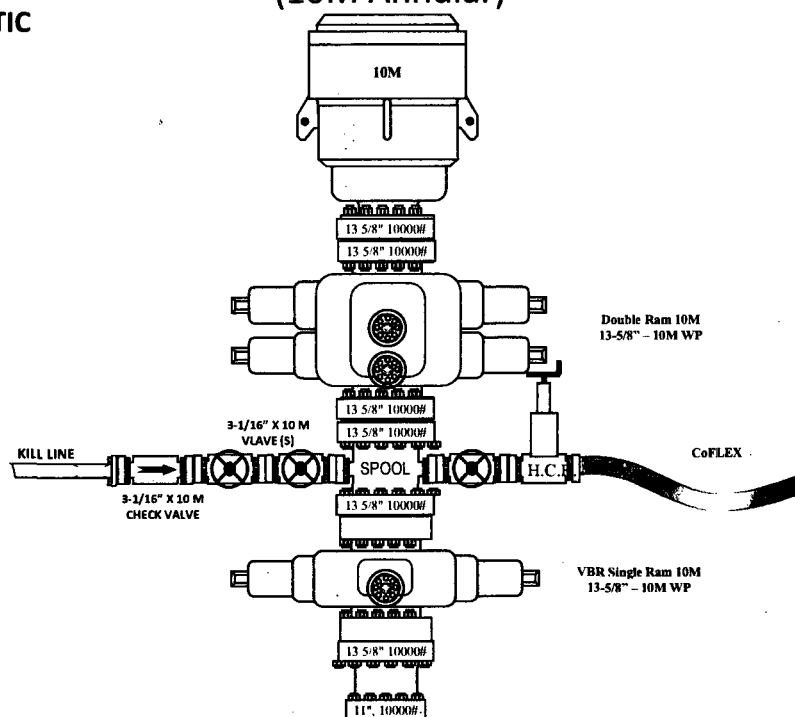
  
ContiTech Rubber  
Industrial Kft.  
QC 2

## 10M BOP Stack

### 10M REMOTE KILL SCHEMATIC



### 10M BOP Stack (10M Annular)





ContiTech Fluid Technology

COPY

ContiTech Oil & Marine Corp. # 11535 Brittmoores Park Dr., Houston, TX 77041-8916 USA		<b>Delivery Note</b>	
NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764		Document No.	<b>83854547</b>
		Document Date	<b>06/28/2017</b>
		Customer Number	11721
Transport-Details - Shipping		Customer VAT No.	
		Supplier Number	
		N° EORI:	FR4102795330002
Conditions Shipping Conditions 0 days Inco Terms EXW Houston Ex Works		Purchase Order No.	13999606
		Purchase Order Date	06/26/2017
		Sales Order Number	974000
		Sales Order Date	06/26/2017
		Unloading Point	
		<b>Page 1 of 2</b>	
		<del>Weights (Gross / Net)</del>	
		Total Weight	1,700.000 LB
		Net Weight	1,700.000 LB
Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com  PR#14438486  Rig: X31			
<b>Item</b>	<b>Material/Description</b>	<b>Quantity</b>	<b>Weight</b>
10	OORECERTIFY	1 PC	1,700.000 LB
Recertification of HP Hoses Serial#62205 3" ID 10K Choke and Kill Hose x 35ft OAL  End 1: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange End 2: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange c/w BX155 ring groove SS Inlay each end Standard: API Spec 16C - Monogrammed Working Pressure: 10,000psi Test Pressure: 15,000psi  Asset # 66-0945  Inspection & Certification includes: External inspection of the hose & couplings Internal boroscopic inspection of hose liner Hydrostatic pressure test of hose assembly			



<b>Conditions</b> Shipping Conditions      0 days Inco Terms                EXW Houston Ex Works		<b>Delivery Note</b> Document No.            83854547 Document Date        06/28/2017 Page 2 of 2	
<p>Repair of any external damage to hose body and end connections (limited to minor repairs) Clean &amp; protect end connections Inspection Report</p> <p>Disposal of hose assembly if hose fails inspection and recertification process</p> <p>Please Flush Hoses before sending them to our Facility.</p> <p>Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com</p> <p>PR#14438486</p> <p>Rig: X31</p>			
<b>Inner packages</b>			
<b>Quantity Packaging</b>		<b>Material</b>	<b>Charge</b>
1	420"X15"X15" -Loose	OORECERTIFY	1
Package number      123198224			



# Hydrostatic Test Certificate



ContiTech

Certificate Number 4000	COM Order Reference 974000	Customer Name / Address Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No: 13999606		
Project:		
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 6/27/19	Accepted by COM Inspection Accepted by Client Inspection

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qty	Serial Number	Test Pressure	Test Temp	Test Date	Tested By
------	----------	-------------	-----	---------------	---------------	-----------	-----------	-----------

20

RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL

1

62205

10,000 psi 15,000 psi

60

Assesst # 66-0945

# Certificate of Conformity



ContiTech

<b>Certificate Number</b> 4000	<b>COM Order Reference</b> 974000	<b>Customer Name &amp; Address</b> Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
<b>Customer Purchase Order No:</b> 13999606		
<b>Project:</b>		
<b>ContiTech Address</b> ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	<b>Authorized Signature</b> Signed: Roger Suarez Date: 6/27/17	<b>Accepted by Client/Inspection</b>

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

20

RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL

1

62205

ContiTech Standard

Assesst # 66-0945

62205 (66-0945)  
6 AM 7

108# 37000 20000  
PAC# 37000 20000  
HOSE DESCRIPTION: 37000 20000  
TEST PRESSURE: 37000 20000  
CHART RECORDER: 37000 20000  
CHART SETTING: 37000 20000  
QBC REPRESENTATIVE: 37000 20000  
DATE: 6-27-66

Graphic Controls

CHART NO. MC MP-20000-150F

METER \_\_\_\_\_  
CHART PUT ON \_\_\_\_\_ M TAKEN OFF \_\_\_\_\_ M  
LOCATION \_\_\_\_\_  
REMARKS \_\_\_\_\_

MIDNIGHT

NOON

6 PM

# Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
Nabors	13999606	974000	A. Jaimes	06/27/2017

<b>Hose Manufacturer</b>	Contitech Rubber Industrial
--------------------------	-----------------------------

<b>Hose Serial #</b>	62205 (66-0945)	<b>Date of Manufacture</b>	12/2011
<b>Hose I.D.</b>	3"	<b>Working Pressure</b>	10000PSI
<b>Hose Type</b>	Choke and Kill	<b>Test Pressure</b>	15000PSI
<b>Manufacturing Standard</b>	API 16C		

## Connections

<b>End A: 4.1/16" 10Kpsi API Spec 17D Swivel Flange</b>	<b>End B: 4.1/16" 10Kpsi API Spec 17D Swivel Flange</b>
• Dents	• No damage
<b>Material: Carbon Steel</b>	<b>Material: Carbon Steel</b>
<b>Seal Face: BX155</b>	<b>Seal Face: BX155</b>
<b>Length Before Hydro Test: 35'</b>	<b>Length After Hydro test: 35'</b>

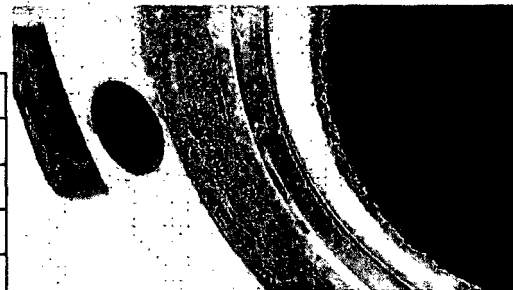
**Conclusion:** Hose #62205 passed the external inspection with no notable damage to the hose armor. The flange face on end A did have minor dents but did not affect the test outcome. It is advised that additional care be taken in order to avoid further damage to the flange face. Internal borescope of the hose showed no damage to the liner. Hose #62205 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62205 is suitable for continued service.

**Recommendations:** In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)  
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)  
Initial 5 years service: Major inspection  
2nd Major inspection: Following subsequent 3 year life cycle  
(Detailed description of test regime available upon request, QCP 206-1)

**\*\*NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.







<b>External Damage</b>
<b>Pre - Hydro test</b>
End A has minor dents at the edge of the seal face but did not compromise the hydrostatic pressure test. Additional care should be take in order to avoid further damage



Issued By: Alejandro Jaimes  
Date: 6/27/2017

Checked By: Gerson Mejia-Lazo  
Date: 6/27/2017

Page 1 of 1  
QF97

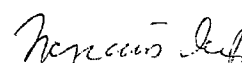
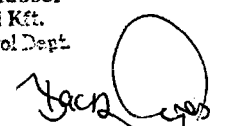
(1) Ship-to party <b>NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764</b>		(2) Unloading point - storage location - usage	
(3) Delivery note no. <b>83854547</b> 		(4) Vendor address (short name, plant, ZIP, city) <b>ContiTech Oil &amp; Marine Corp. 11535 Brittmoore Park Drive Houston TX 77041-6916</b>	
(8) Supplier ref. no. <b>00RECERTIFY</b> 			
(9) Quantity <b>1</b> 		(5) Net weight <b>1,700 LB</b>	(6) Gross weight <b>1,700 LB</b>
		(7) Number of packages <b>1</b>	
(12) ContiTech Sales order no. <b>974000</b> 		(10) Description of delivery, service <b>Recertification of HP Hoses Se</b>	
		(13) Packing date <b>06/28/17</b>	(14) Engineering change status
(15) Package no. <b>123198224</b> 		(16) Customer PO no. <b>13999606</b> 	

Material label VDA 4902 Vers. 4

66-0945

62205

ContiTech

<b>QUALITY CONTROL INSPECTION AND TEST CERTIFICATE</b>		CERT. N°: 682	
PURCHASER: ContiTech Oil & Marine Corp.		P.O. N°: 4500984922	
CONTITECH RUBBER order N°: 987778	HOSE TYPE: 3" ID Choke and Kill Hose		
HOSE SERIAL N°: 73981	NOMINAL / ACTUAL LENGTH: 13,72 m / 13,80 m		
W.P. 69,0 MPa 10000 psi	T.P. 103,5 MPa 15000 psi	Duration: 60 min.	
Pressure test with water at ambient temperature  <p style="text-align: center;">See attachment ( 1 page )</p>			
COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with 4 1/16" 10K API Swivel Flange end Hub	8077 8083	AISI 4130 AISI 4130 AISI 4130	A0939Y 037184 85913 A0939Y
<b>Not Designed For Well Testing</b>		<b>API Spec 16 C 2<sup>nd</sup> Edition– FSL2</b>	
<b>TAG NO.: 66-1486</b>		<b>Temperature rate: "B"</b>	
All metal parts are flawless			
<b>WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.</b>			
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.			
COUNTRY OF ORIGIN HUNGARY/EU			
Date:	Inspector	Quality Control	
03. October 2017.		ContiTech Rubber Industrial Kft. Quality Control Dept.  	

ATTACHMENT OF QUALITY CONTROL  
INSPECTION AND TEST CERTIFICATE  
No: 681, 682

CONTITECH RUBBER Industrial Kft.	No: QC-DB- 298 / 2017
	Page: 9 / 119

1/1

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Stop Time : 2017/10/02 20:26:35.000

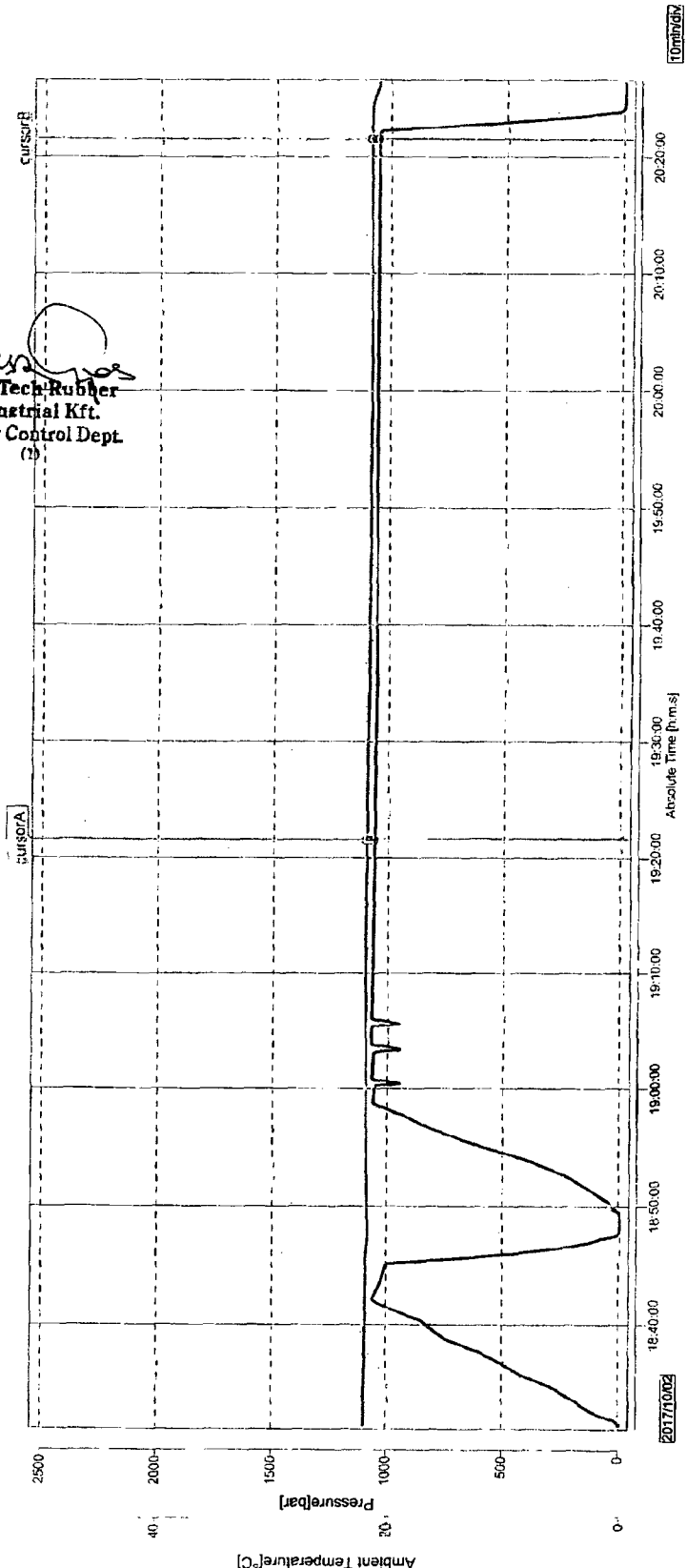
Sampling Int.  
Start Time  
Stop Time

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File Message : 73980.73981  
Device Type : GX10  
Serial No. : SSP-606399  
Data Count : 1386

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Print Range :  
Comment :  
Press: Temp :  
2017/10/02 18:31:10.000 - 2017/10/02 20:26:35.000  
142056635

Data No.	Cursor A	Cursor B	Difference
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Absolute Time	Value A	Value B	Value B-A
Tag Comment	1064.15	1055.97	-8.18
Pressure[bar]	21.93	21.73	-0.20
Ambient Temperature[°C]			

*Signature*  
ContiTech Rubber  
Industrial Kft.  
Quality Control Dept.  
(2)





## Hose Data Sheet

CRI Order No.	987778
Customer	ContiTech Oil & Marine Corp
Customer Order No	4500984922 CO987640
Item No.	10
Hose Type	Flexible Hose
<b>Standard</b>	<b>API SPEC 16C 2ND EDITION FSL2</b>
Inside dia in Inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID RING GROOVE SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID RING GROOVE SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	CONTINENTAL CONTITECH
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

  
ContiTech Rubber  
Industrial Kft.  
QC 2





ContiTech Fluid Technology

COPY

<b>ContiTech Oil &amp; Marine Corp. # 11535 Brittmoores Park Dr., Houston, TX 77041-6916 USA</b>		<b>Delivery Note</b>	
NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764		Document No.	<b>83854547</b>
		Document Date	<b>06/28/2017</b>
Transport-Details - Shipping		Customer Number	11721
		Customer VAT No.	
Conditions Shipping Conditions 0 days Inco Terms EXW Houston Ex Works		Supplier Number	
		N° EORI:	FR4102795330002
		Purchase Order No.	13999606
		Purchase Order Date	06/26/2017
		Sales Order Number	974000
		Sales Order Date	06/26/2017
		Unloading Point	
		Page 1 of 2	
		<b>Weights (Gross / Net)</b>	
		Total Weight	1,700.000 LB
		Net Weight	1,700.000 LB
 <i>Buyer: Andras Kruppa</i> <i>E-mail: Andras.Kruppa@nabors.com</i>  <i>PR#14438486</i>  <i>Rig: X31</i>			
<b>Item</b>	<b>Material/Description</b>	<b>Quantity</b>	<b>Weight</b>
10	OORECERTIFY	1 PC	1,700.000 LB
	Recertification of HP Hoses Serial#62205		
	3" ID 10K Choke and Kill Hose x 35ft OAL		
	End 1: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange		
	End 2: 4 - 1/16" 10Kpsi API Spec 17D SV Swivel Flange		
	c/w BX155 ring groove SS Inlay each end		
	Standard: API Spec 16C - Monogrammed		
	Working Pressure: 10,000psi		
	Test Pressure: 15,000psi		
	Asset # <b>66-0945</b>		
	Inspection & Certification includes:		
	External inspection of the hose & couplings		
	Internal boroscopic inspection of hose liner		
	Hydrostatic pressure test of hose assembly		



ContiTech Fluid Technology

<b>Conditions</b> Shipping Conditions 0 days Inco Terms EXW Houston Ex Works		<b>Delivery Note</b> Document No. 83854547 Document Date 06/28/2017 Page 2 of 2	
<p>Repair of any external damage to hose body and end connections (limited to minor repairs) Clean &amp; protect end connections Inspection Report</p> <p>Disposal of hose assembly if hose fails inspection and recertification process</p> <p>Please Flush Hoses before sending them to our Facility.</p> <p>Buyer: Andras Kruppa E-mail: Andras.Kruppa@nabors.com</p> <p>PR#14438486</p> <p>Rig: X31</p>			
<b>Inner packages</b>			
<b>Quantity Packaging</b>		<b>Material</b>	<b>Charge</b>
1	420"X15"X15" -Loose	OORECERTIFY	1
Package number	123198224		



## Hydrostatic Test Certificate

ContiTech


Certificate Number 4000	COM Order Reference 974000	Customer Name & Address Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No: 13999606		
Project:		
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 6/27/17	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Quantity	Description	Qty	Test Pressure	Test Result	Test Date	Tested By	Tested By (Signature)
------	----------	-------------	-----	---------------	-------------	-----------	-----------	-----------------------

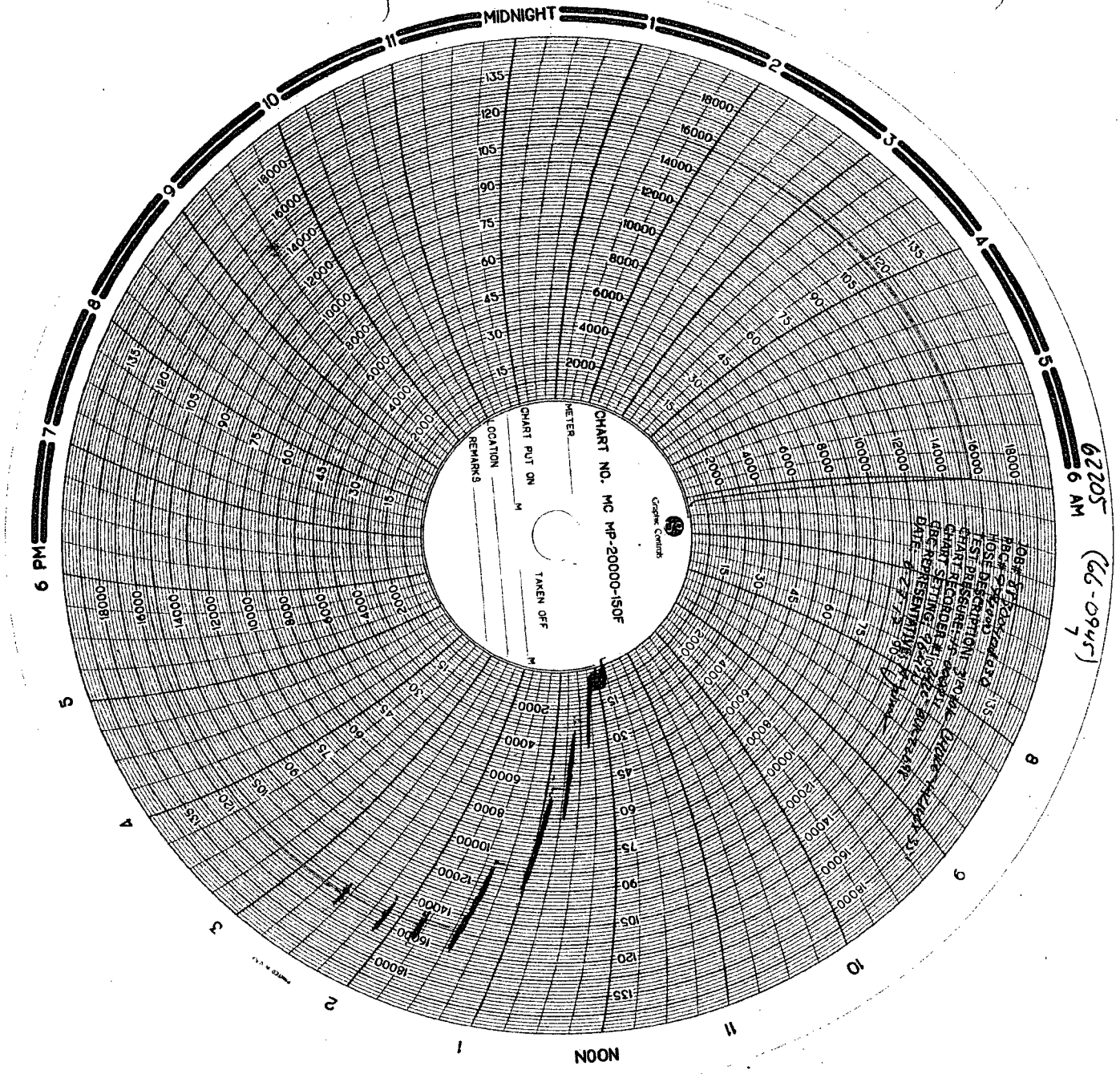
20      RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL      1      62205      10,000 psi      15,000 psi      60  
Assesst # 66-0945

# Continental

Certificate Number 4000		COM Order Reference 974000		Nabors Lux Finance 2 S.a.r.L. 8-10 Avenue de la Gare L-1610 LUXEMBOURG
Customer Purchase Order No:		13999606		
Project:				
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA		Signed:	Roger Suarez 	
		Date:	6/27/17	

Case	Selection	Information	Performance	Efficiency	Qualification
------	-----------	-------------	-------------	------------	---------------

20	RECERTIFICATION - 3" ID 10K Choke & Kill Hose x 35 ft OAL	1	62205	ContiTech Standard
			Asset # 66-0945	



62205 (66-0945) 7

6 AM

# Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
Nabors	13999606	974000	A. Jaimes	06/27/2017

Hose Manufacturer	Contitech Rubber Industrial
-------------------	-----------------------------

Hose Serial #	62205 (66-0945)	Date of Manufacture	12/2011
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

## Connections

End A: 4.1/16" 10Kpsi API Spec 17D Swivel Flange	End B: 4.1/16" 10Kpsi API Spec 17D Swivel Flange
• Dents	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX155	Seal Face: BX155
Length Before Hydro Test: 35'	Length After Hydro test: 35'

**Conclusion:** Hose #62205 passed the external inspection with no notable damage to the hose armor. The flange face on end A did have minor dents but did not affect the test outcome. It is advised that additional care be taken in order to avoid further damage to the flange face. Internal borescope of the hose showed no damage to the liner. Hose #62205 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62205 is suitable for continued service.

**Recommendations:** In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)  
 Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)  
 Initial 5 years service: Major inspection  
 2nd Major inspection: Following subsequent 3 year life cycle  
 (Detailed description of test regime available upon request, QCP 206-1)

**\*\*NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.







External Damage Pre - Hydro test
End A has minor dents at the edge of the seal face but did not compromise the hydrostatic pressure test. Additional care should be take in order to avoid further damage



Issued By: Alejandro Jaimes  
 Date: 6/27/2017

Checked By: Gerson Mejia-Lazo  
 Date: 6/27/2017

Page 1 of 1  
 QF97

(1) Ship-to party <b>NDTUSA- ODESSA 2500 W OREGON ODESSA TX 79764</b>		(2) Unloading point - storage location - usage	
(3) Delivery note no. <b>83854547</b> 		(4) Vendor address (short name, plant, ZIP, city) <b>ContiTech Oil &amp; Marine Corp. 11535 Brittmoore Park Drive Houston TX 77041-6916</b>	
(8) Supplier ref. no. <b>00RECERTIFY</b> 			
(9) Quantity <b>1</b> 		(5) Net weight <b>1,700 LB</b>	(6) Gross weight <b>1,700 LB</b>
(12) ContiTech Sales order no. <b>974000</b> 		(7) Number of packages <b>1</b>	
		(10) Description of delivery, service <b>Recertification of HP Hoses Se</b>	
		(13) Packing date <b>06/28/17</b>	(14) Engineering change status
(15) Package no. <b>123198224</b> 		(16) Customer PO no. <b>13999606</b> 	

Material label VDA 4902 Vers. 4

66-0945

62205

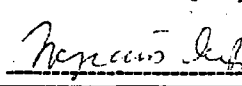
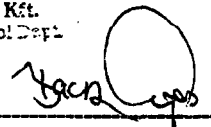


ContiTech

CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017

Page: 8 / 119

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 682	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500984922	
CONTITECH RUBBER order N°: 987778		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 73981		NOMINAL / ACTUAL LENGTH: 13,72 m / 13,80 m			
W.P. 69,0 MPa 10000 psi		T.P. 103,5 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment ( 1 page )					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8077 8083		AISI 4130	
4 1/16" 10K API Swivel Flange end				AISI 4130	
Hub				AISI 4130	
				037184 85913	
				A0939Y	
Not Designed For Well Testing					
API Spec 16 C 2 <sup>nd</sup> Edition– FSL2					
TAG NO.: 66-1486					
Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
03. October 2017.				ContiTech Rubber Industrial Kft. Quality Control Dept.  	



ATTACHMENT OF QUALITY CONTROL  
INSPECTION AND TEST CERTIFICATE  
No: 681, 682

CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017

Page: 9 / 119

1/1

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: 2017/10/02 18:31:10.000  
: 2017/10/02 20:26:35.000

Sampling Int.  
Start Time  
Stop Time

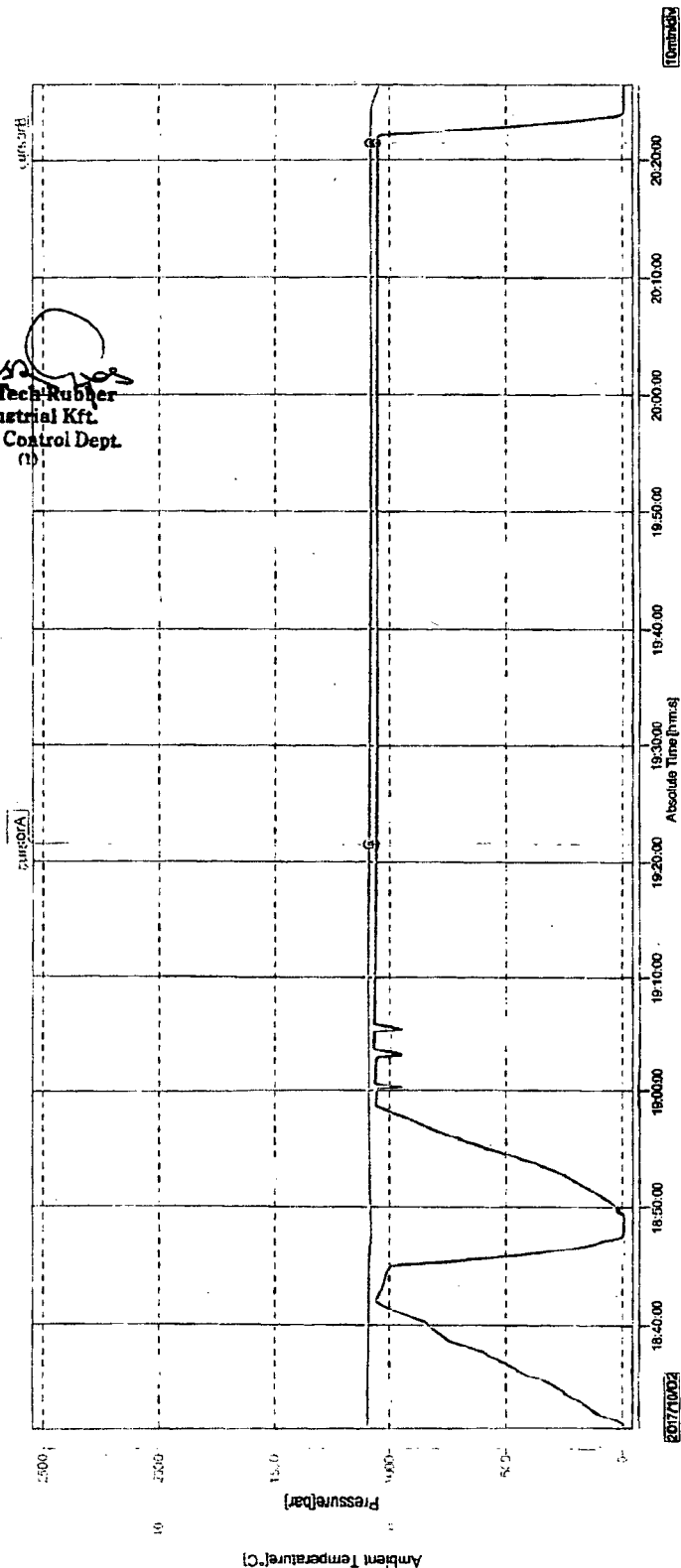
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73980\_73981  
GX10  
: SSP06399  
: 1388

Press-Temp  
2017/10/02 18:31:10.000 - 2017/10/02 20:26:35.000  
142056635

File Name  
File Message  
Device Type  
Serial No.  
Data Count  
Print Group  
Print Range  
Comment

Data No.	Cursor A	Cursor B	Difference
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Absolute Time	Value A	Value B	Value B-A
Tag Comment	1064.15	1055.97	-8.18
Pressure[bar]	21.83	21.73	-0.20
Ambient Temperature[°C]			

ContiTech-Rubber  
Industrial Kft.  
Quality Control Dept.  
(1)





CONTITECH RUBBER  
Industrial Kft.

No: QC-DB- 298 / 2017  
Page: 21 / 119

ContiTech

### Hose Data Sheet

CRI Order No.	987778
Customer	ContiTech Oil & Marine Corp
Customer Order No	4500984922 CO987640
Item No.	10
Hose Type	Flexible Hose
<b>Standard</b>	<b>API SPEC 16C 2ND EDITION FSL2</b>
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID RING GROOVE SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID RING GROOVE SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	CONTINENTAL CONTITECH
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

  
ContiTech Rubber  
Industrial Kft.  
QC 2

# Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1190	13.375"	54.5	J55	STC	2.12	5.92	7.93
12.25"	0	12140	9.625"	47	HCL80	BTC	1.45	1.03	1.97
8.5	0	22,476	5.5"	23	P110	BTC	1.78	2.11	2.51
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.  
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

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# COG Operating, LLC - Fasconator Fed Com 604H

## 1. Geologic Formations

TVD of target	12,532' EOL	Pilot hole depth	NA
MD at TD:	22,476'	Deepest expected fresh water:	207'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1104	Water	
Top of Salt	1301	Salt	
Base of Salt	5149	Salt	
Lamar	5475	Salt Water	
Bell Canyon	5498	Salt Water	
Cherry Canyon	6473	Oil/Gas	
Brushy Canyon	8081	Oil/Gas	
Bone Spring Lime	9324	Oil/Gas	
U. Avalon Shale	9674	Oil/Gas	
L. Avalon Shale	9915	Oil/Gas	
1st Bone Spring Sand	10483	Oil/Gas	
2nd Bone Spring Sand	11189	Oil/Gas	
3rd Bone Spring Sand	12139	Target Oil/Gas	
Wolfcamp	12569	Not Penetrated	

## 2. Casing Program

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**COG Operating, LLC - Fasconator Fed Com 604H**

	<b>Y or N</b>
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

## COG Operating, LLC - Fasconator Fed Com 604H

### 3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft <sup>3</sup> / sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	520	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter. Stage1	1000	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
DV Tool @ 5480'						
Inter. Stage2	760	11	2.8	19	48	Lead: NeoCem
	100	14.8	1.35	6.34	8	Tail: Class C + 2% CaCl
5.5 Prod	400	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	2850	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 <sup>st</sup> Intermediate	0'	50%
Production	11,140'	35%



# COG Operating, LLC - Fasconator Fed Com 604H

## 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	10M	5M Annular	x	5000 psi
			Blind Ram		10M
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

## COG Operating, LLC - Fasconator Fed Com 604H

### 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12.5	30-40	20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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### 6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	Are Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

Operator Name: COG OPERATING LLC

Well Name: FASCINATOR FEDERAL COM

Well Number: 604H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	330	FNL	450	FWL	24S	35E	30	Aliquot NWN W	32.19482	- 103.4137 06	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	- 907 8	126 50	124 50
PPP Leg #1	0	FNL	450	FWL	24S	35E	31	Aliquot NWN W	32.18099	- 103.4136 73	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014164	- 921 5	173 00	125 87
PPP Leg #1	264 0	FSL	450	FWL	24S	35E	31	Aliquot NWS W	32.17396	- 103.4136 56	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 924 8	199 00	126 20
PPP Leg #1	132 0	FNL	450	FWL	24S	35E	30	Aliquot SWN W	32.17747 5	- 103.4136 64	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 132947	- 923 2	186 00	126 04
EXIT Leg #1	330	FSL	450	FWL	24S	35E	31	Aliquot SWS W	32.16763 3	- 103.4136 42	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 132947	- 927 7	222 00	126 49
BHL Leg #1	200	FSL	450	FWL	24S	35E	31	Aliquot SWS W	32.16727 5	- 103.4136 39	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 132947	- 928 0	224 76	126 52

## COG Operating, LLC - Fasconator Fed Com 604H

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8150 psi at 12532' TVD
Abnormal Temperature	NO 180 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N H<sub>2</sub>S is present

Y H<sub>2</sub>S Plan attached

### 8. Other Facets of Operation

Y	Is it a walking operation?
N	Is casing pre-set?

x	H <sub>2</sub> S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	5M Annular Variance