

HOBBS OCD

APR 03 2013

ATS-12-1021

Form 3160-3
(March 2012)

SECRETARY'S POTASH

OCD Hobbs RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

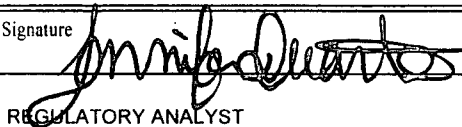
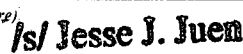
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMLC-0065710
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator OCCIDENTAL PERMIAN LIMITED PARTNERSHIP		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. BOX 4294 HOUSTON, TX 77210		8. Lease Name and Well No. 39796 SOUTH LUSK 28 FEDERAL #1H
3b. Phone No. (include area code) 713-513-6640		9. API Well No. 157984 30-025-41089
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330' FNL & 585' FEL At proposed prod. zone 330' FSL & 660' FEL		10. Field and Pool, or Exploratory LUSK; BONE SPRING SOUTH (41460)
14. Distance in miles and direction from nearest town or post office* 35 Miles NorthEast of Carlsbad, NM		11. Sec., T. R. M. or Blk. and Survey or Area A, SEC 28, T19S, R32E
15. Distance from proposed* 330' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 560	12. County or Parish LEA COUNTY, NM
18. Distance from proposed location* 1500' to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 13734' MD / 9420' TVD	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3586.1'	22. Approximate date work will start* 08/31/2012	17. Spacing Unit dedicated to this well X 160
		20. BLM/BIA Bond No. on file NM000019 NM BOND 0819 + NM 2797
		23. Estimated duration 10 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 	Name (Printed/Typed) JENNIFER DUARTE (jennifer_duarte@oxy.com)	Date 07/26/2012
Title REGULATORY ANALYST		
Approved by (Signature) 	Name (Printed/Typed)	DATE MAR 25 2013
Title STATE DIRECTOR		Office NM STATE OFFICE

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.

APPROVAL FOR TWO YEARS

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)

*(Instructions on page 2)

Capitan Controlled Water Basin

KE 04/08/13

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

APR 04 2013

United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220

Attention: Jennifer Duarte

RE: South Lusk 28 Federal #1H
Section 28, 19S-32E
Lea County, New Mexico

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

OPERATOR NAME: Occidental Permian Limited Partnership
ADDRESS: P.O. Box 4294
Houston, Texas 77210-4294

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

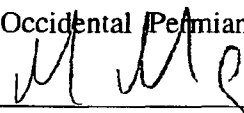
LEASE NO.: NMLC-0065710 (560 Acres)

LEGAL DESCRIPTION: SL: 330' FNL & 585' FEL NENE (A)
PBHL: 330' FSL & 660' FEL SESE (P)
Section 28 T19S-R32E
Lea County, New Mexico

FORMATIONS: Bone Springs

BOND COVERAGE: Nationwide

BLM BOND FILE NO.: NM000819

AUTHORIZED SIGNATURE: 
Occidental Permian Limited Partnership
Michael Meir

TITLE: Land Negotiator

DATE: June 6, 2012

**Occidental Permian Ltd.
South Lusk 28 Federal 1H
APD Data**

OPERATOR NAME / NUMBER: OXY USA Inc
LEASE NAME / NUMBER: South Lusk 28 Federal #1H
STATE: NM **COUNTY:** Lea
SURFACE LOCATION: 330' FNL & 585' FEL, Sec 28, T19S, R32E
BOTTOM HOLE LOCATION: 330' FSL & 660' FEL, Sec 28, T19S, R32E
C-102 PLAT APPROX GR ELEV: 3586.1'
EST KB ELEV: 3610.1' (24' KB)

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1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS

Geological Marker	Top TVD	Fluid Type
Rustler	900'	---
Salado (T. Salt)	1115'	---
Tansill (Base Salt)	2495'	---
T. Yates	2650'	---
T. Seven Rivers (Top of Capitan Reef)	3050'	---
T. Queen (Base of Capitan Reef)	3550'	---
Delaware	4725'	Oil
T. Bone Spring	7370'	Oil
T. BSPG 1st Sand	8530'	Oil
T. BSPG2 Limestone	8830'	Oil
T. BSPG 2nd Sand	9210'	Oil
Target 2nd Bone Spring	9420'	Oil

Presence of Fresh Water: Fresh Water may be present above the Rustler formation. Surface casing will cover them.

GREATEST PROJECTED TD 13734' MD / 9420' TVD **OBJECTIVE:** 2nd Bone Spring

3. CASING PROGRAM (ALL NEW CASING)

Surface Casing: 20" casing set at $\pm 930'$ MD / 930' TVD in a 26" hole filled with 8.6 ppg mud

See core

Interval	Length 955'	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 930'	930'	94	J55	ST&C	520	2110	784	19.12	18.93	1.61	2.34	10.33

Intermediate1 Casing: 13 $\frac{3}{8}$ " casing set at $\pm 2595'$ MD / 2595' TVD in a 17.5" hole filled with 10.2 ppg mud

See core

Interval	Length 2750'	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 2595'	2595'	61	J-55	ST&C	1540	3090	595	12.51	12.35	1.71	2.44	4.33

Intermediate2 Casing: 9 5/8" casing set at ±3650'MD / 3650'TVD in a 12 1/4" hole filled with 8.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 3650'	3650'	40	L-80	LT&C	3090	5750	727	8.835	8.75	2.24	1.61	5.79

Production Casing: 5.5" casing set at ±13734'MD / 9420'TVD in a 8 3/4" hole filled with 9.2 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 13734'	13734'	17	L-80	BT&C	6290	7740	397	4.892	4.767	1.40	2.17	2.88

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Surface (TOC: 0')							
Lead: 0' - 630' (165% Excess)	1380	630	Premium Plus Cement, with 4% Bentonite, 2% Calcium Chloride, & 0.125 lb/sk Poly-E-Flake	9.18	13.5	1.75	1069 psi
Tail: 630' - 930' (165% Excess)	960	300	Premium Plus cement with 2% Calcium Chloride	6.39	14.8	1.35	1827 psi

Intermediate1 Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' - 2057' (105 % Excess)	1400	2057	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.87	12.9	1.90	760 psi
Tail: 2057' - 2595' (105% Excess)	600	538	Premium Plus cement with 1% Calcium Chloride	6.36	14.8	1.34	2032 psi

Intermediate2 Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' - 2899' (150% Excess)	650	2899	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.99	12.9	1.91	625 psi
Tail: 2899' - 3650' (150% Excess)	450	751	Premium Plus cement with 2% Calcium Chloride	6.39	14.8	1.35	1746 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 8000') 1st Stage							
8000'-13734' (85% Excess)	1660	5734	Super H Cement - 0.5% Halad®-344, 0.4% CFR-3, 3 lbm/sk Kol-Seal, 1 lbm/sk Salt, 0.125 lbm/sk Poly-E-Flake, 0.3% HR-601	8.25	13.2	1.63	1275 psi

DV Tool @ 8000

Production (TOC: 3700') 2nd Stage							
Lead: 3700' – 7764' (125% Excess)	1070	4064	Light Premium Plus, 5 lbm/sk Kol-Seal, 0.125 lbm/sk Poly-E-Flake, 5 lbm/sk Salt, 0.4% HR-601	11.80	12.4	2.17	709 psi
Tail: 7764' – 8000' (125% Excess)	100	236	Premium Plus cement with 0.15% HR-601	6.50	14.8	1.34	1303 psi
Pack-Off Stage Tool @ 3700'							

Production (TOC: Surface) 3rd Stage							
Lead: 0' – 3279' (10% Excess)	460	3279	Light Premium Plus with 3 lb/sk Salt	11.39	12.4	2.05	393 psi
Tail: 3279' – 3700' (10% Excess of Annular Volume)	100	421	Premium Plus cement with 2% Calcium Chloride	6.39	14.8	1.35	2100 psi

A. Description of Cement Additives:

Bentonite: Light Weight Additive

Calcium Chloride: Accelerator

CFR-3: Dispersant

Halad-344: Low Fluid Loss Control

HR-601: Retarder

Kol-Seal: Lost Circulation Additive

Poly-E-Flake: Lost Circulation Additive

5. DIRECTIONAL PLAN:

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT:

Surface: 0 – 930' None.

Intermediate1: 0 - 2595' First intermediate hole will be drilled with a 2M Annular Diverter system. The Annular will be tested to 1400psi (70% of working pressure.)

Intermediate2: 0 - 3650' Second intermediate hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold.

Production: 0 – 13734' Production hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold. Oxy requires the use of a 5M BOP stack.

- a. All BOP's and associated equipment will be tested in accordance with Onshore Order #2 (250/5000 psi on rams for 10 minutes each and 250/3500 for 10 minutes for annular preventer, equal to 70% of working pressure) with a third party BOP testing service before drilling out the 13-3/8" casing shoe. Wellhead pressure rating will support this test and 13-3/8" casing will be protected from high pressure. Since the wellhead system is a multibowl design, this initial test will cover the requirements prior to drilling out the 9-5/8" casing shoe.
- b. Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be accommodated on the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 5000 psi WP rating. Oxy requests that the system be tested at 5,000 psi WP rating.
- c. Oxy requests a variance to use a 2M Diverter on the 20" surface casing
- d. Oxy requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose made by Contitech Rubber Industrial KFT. It is a 3" ID x 35' flexible hose rated to 10,000

- psi working pressure. It has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps. Please see attached certifications.
- e. See attached Diverter, BOP & Choke manifold diagrams.

7. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 - 930'	8.4 - 8.6	32 - 34	NC	Fresh Water /Spud Mud
930' - 2595'	9.8 - 10.0	28 - 29	NC	Brine Water
2595' - 3650'	8.6 - 8.8	28 - 29	NC	Fresh Water
3650' - 8000'	8.6 - 8.8	28 - 29	NC	Brine Water
8000' - TD	9.0 - 9.2	40 - 50	8 - 15	Salt Gel

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times.

Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. **If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM**

9. LOGGING / CORING AND TESTING PROGRAM: *see log*

- Mud Logger: None.
- DST's: None.
- Open Hole Logs as follows: GR-NEU-DEN-RES from TD to Int Casing. GR-NEU to surface.

10. POTENTIAL HAZARDS:

- H₂S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H₂S is encountered the operator will comply with Onshore Order #6.
- The bottomhole pressure is anticipated to be between 4000 psi and 4300 psi. **The highest anticipated pressure gradient is 0.45 psi/ft**
- No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

11. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

12. COMPANY PERSONNEL:

Name	Title	Office Phone	Mobile Phone
Carlos Mercado	Drilling Engineer	713-366-5418	281-455-3481
Luis Tarazona	Drilling Engineer Supervisor	713-366-5771	713-628-9526
Roger Allen	Drilling Superintendent	713- 215-7617	281-682-3919
Douglas Chester	Drilling Manager	713- 366-5194	713-918-9124



Weatherford[™]

Drilling Services

Proposal



OCCIDENTAL PERMIAN LTD.

SOUTHLUSK 28 FED #1H

LEA CO., NEW MEXICO

WELL FILE: PLAN 1

JUNE 20, 2012

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com



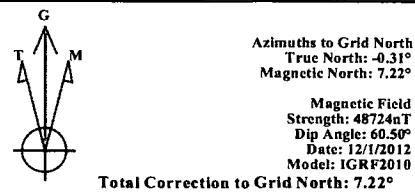
South Lusk 28 Fed #1H
Lea Co, New Mexico

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	180.55	0.00	0.00	0.00	0.00	0.00	0.00	
2	8703.80	0.00	180.55	8703.80	0.00	0.00	0.00	0.00	0.00	
3	9828.80	90.00	180.55	9420.00	-716.16	-6.88	8.00	180.55	716.20	
4	13733.62	90.00	180.55	9420.00	-4620.80	-44.40	0.00	0.00	4621.01	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
South Lusk 28 Fed #1H	0.00	0.00	596142.20	675257.10	32°38'15.384N	103°45'50.426W	N/A

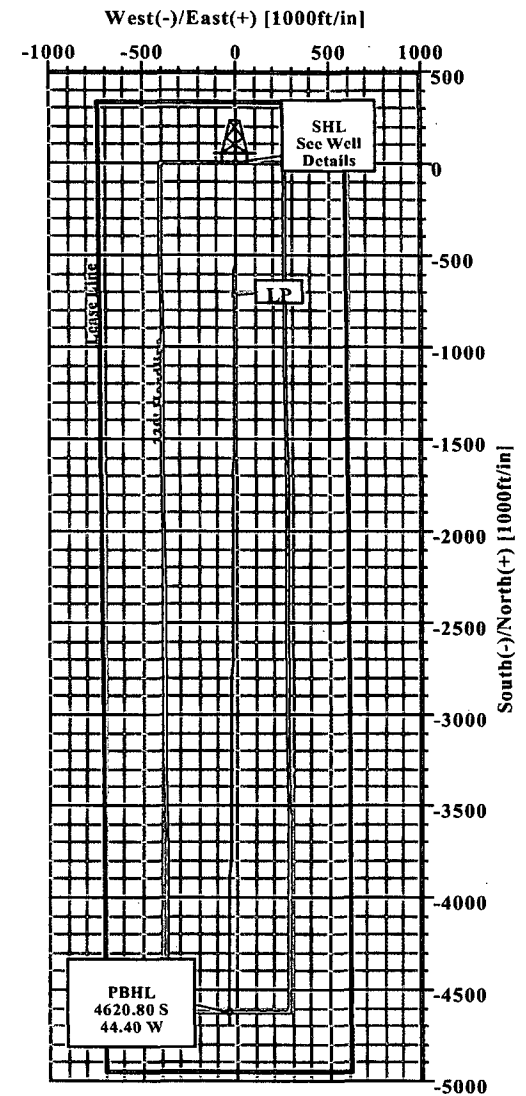
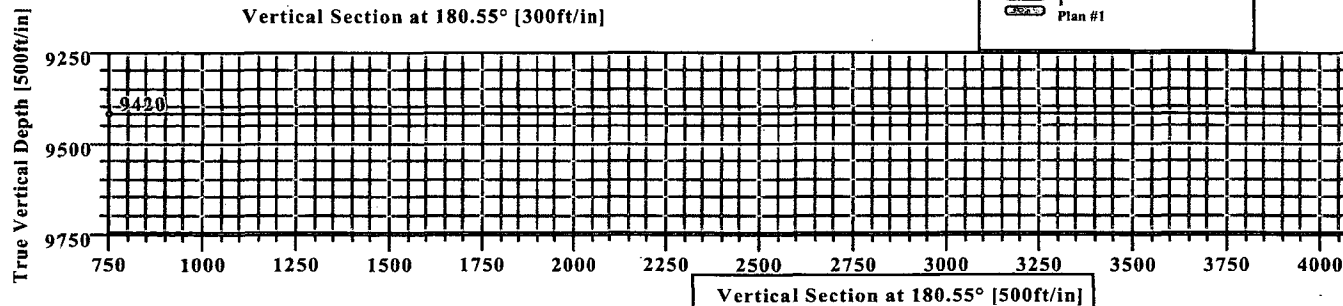
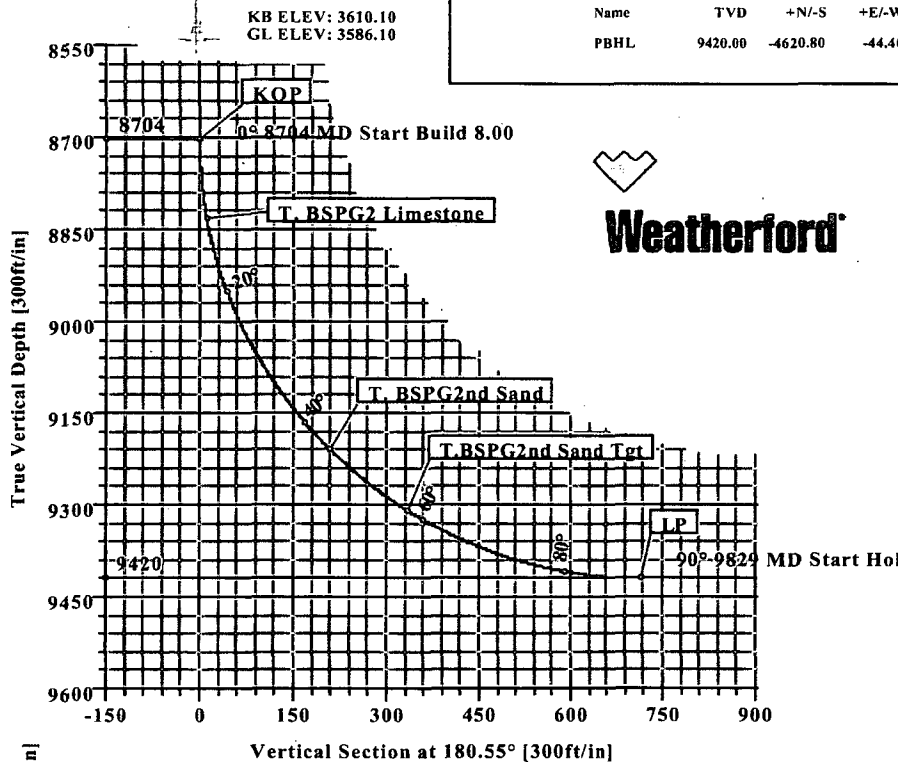
TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
PBHL	9420.00	-4620.80	-44.40	591521.40	675212.70	Point	

SITE DETAILS
South Lusk 28 Fed #1H
Site Centre Northing: 596142.20
Easting: 675257.10
Ground Level: 3586.10
Positional Uncertainty: 0.00
Convergence: 0.31



FIELD DETAILS
Lea Co, New Mexico (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

LEGEND
1
Plan #1





Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Occidental Permian Ltd. Date: 6/20/2012 Time: 09:21:42 Page: 1
 Field: Lea Co, New Mexico (Nad 27) Co-ordinate(NE) Reference: Well: South Lusk 28 Fed #1H, Grid North
 Site: South Lusk 28 Fed #1H Vertical (TVD) Reference: SITE 3610.1
 Well: South Lusk 28 Fed #1H Section (VS) Reference: Well: (0.00N;0.00E,180.55Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 6/20/2012
 Principal: Yes Version: 1
 Tied-to: From Surface

Field: Lea Co, New Mexico (Nad 27)

Map System: US State Plane Coordinate System 1927 Map Zone: New Mexico, Eastern Zone
 Geo Datum: NAD27 (Clarke 1866) Coordinate System: Well Centre
 Sys Datum: Mean Sea Level Geomagnetic Model: IGRF2010

Site: South Lusk 28 Fed #1H

Site Position: Northing: 596142.20 ft Latitude: 32 38 15.384 N
 From: Map Easting: 675257.10 ft Longitude: 103 45 50.426 W
 Position Uncertainty: 0.00 ft North Reference: Grid
 Ground Level: 3586.10 ft Grid Convergence: 0.31 deg

Well: South Lusk 28 Fed #1H Slot Name:
 Well Position: +N/-S 0.00 ft Northing: 596142.20 ft Latitude: 32 38 15.384 N
 +E/-W 0.00 ft Easting: 675257.10 ft Longitude: 103 45 50.426 W
 Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface
 Tie-on Depth: 0.00 ft
 Current Datum: SITE Height 3610.10 ft Above System Datum: Mean Sea Level
 Magnetic Data: 12/1/2012 Declination: 7.53 deg
 Field Strength: 48724 nT Mag Dip Angle: 60.50 deg
 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
 ft ft ft deg
 0.00 0.00 0.00 180.55

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	180.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8703.80	0.00	180.55	8703.80	0.00	0.00	0.00	0.00	0.00	0.00	
9828.80	90.00	180.55	9420.00	-716.16	-6.88	8.00	8.00	0.00	180.55	
13733.62	90.00	180.55	9420.00	-4620.80	-44.40	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8703.80	0.00	180.55	8703.80	0.00	0.00	0.00	0.00	596142.20	675257.10	KOP
8750.00	3.70	180.55	8749.97	-1.49	-0.01	1.49	8.00	596140.71	675257.09	
8800.00	7.70	180.55	8799.71	-6.45	-0.06	6.45	8.00	596135.75	675257.04	
8830.66	10.15	180.55	8830.00	-11.21	-0.11	11.21	8.00	596130.99	675256.99	T. BSPG2 Limestone
8850.00	11.70	180.55	8848.99	-14.87	-0.14	14.87	8.00	596127.33	675256.96	
8900.00	15.70	180.55	8897.56	-26.70	-0.26	26.71	8.00	596115.50	675256.84	
8950.00	19.70	180.55	8945.18	-41.90	-0.40	41.90	8.00	596100.30	675256.70	
9000.00	23.70	180.55	8991.63	-60.38	-0.58	60.38	8.00	596081.82	675256.52	
9050.00	27.70	180.55	9036.67	-82.05	-0.79	82.06	8.00	596060.15	675256.31	
9100.00	31.70	180.55	9080.10	-106.82	-1.03	106.82	8.00	596035.38	675256.07	
9150.00	35.70	180.55	9121.69	-134.55	-1.29	134.55	8.00	596007.65	675255.81	
9200.00	39.70	180.55	9161.25	-165.11	-1.59	165.12	8.00	595977.09	675255.51	
9250.00	43.70	180.55	9198.57	-198.36	-1.91	198.37	8.00	595943.84	675255.19	
9265.98	44.97	180.55	9210.00	-209.53	-2.01	209.54	8.00	595932.67	675255.09	T. BSPG2nd Sand
9300.00	47.70	180.55	9233.49	-234.14	-2.25	234.15	8.00	595908.06	675254.85	
9350.00	51.70	180.55	9265.82	-272.26	-2.62	272.27	8.00	595869.94	675254.48	
9400.00	55.70	180.55	9295.42	-312.54	-3.00	312.56	8.00	595829.66	675254.10	



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Site: South Lusk 28 Fed #1H
Well: South Lusk 28 Fed #1H
Wellpath: 1

Date: 6/20/2012 Time: 09:21:42 Page: 2
Co-ordinate(NE) Reference: Well: South Lusk 28 Fed #1H, Grid North
Vertical (TVD) Reference: SITE 3610:1
Section (VS) Reference: Well (0.00N,0.00E,180.55Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9426.60	57.82	180.55	9310.00	-334.79	-3.22	334.80	8.00	595807.41	675253.88	T.BSPG2nd Sand Tgt
9450.00	59.70	180.55	9322.14	-354.79	-3.41	354.81	8.00	595787.41	675253.69	
9500.00	63.70	180.55	9345.84	-398.81	-3.83	398.82	8.00	595743.39	675253.27	
9550.00	67.70	180.55	9366.42	-444.36	-4.27	444.38	8.00	595697.84	675252.83	LP
9600.00	71.70	180.55	9383.76	-491.24	-4.72	491.27	8.00	595650.96	675252.38	
9650.00	75.70	180.55	9397.80	-539.22	-5.18	539.25	8.00	595602.98	675251.92	
9700.00	79.70	180.55	9408.45	-588.06	-5.65	588.09	8.00	595554.14	675251.45	
9750.00	83.70	180.55	9415.67	-637.52	-6.13	637.55	8.00	595504.68	675250.97	
9800.00	87.70	180.55	9419.42	-687.37	-6.60	687.40	8.00	595454.83	675250.50	
9828.80	90.00	180.55	9420.00	-716.16	-6.88	716.20	8.00	595426.04	675250.22	
9900.00	90.00	180.55	9420.00	-787.36	-7.57	787.39	0.00	595354.84	675249.53	
10000.00	90.00	180.55	9420.00	-887.35	-8.53	887.39	0.00	595254.85	675248.57	
10100.00	90.00	180.55	9420.00	-987.35	-9.49	987.39	0.00	595154.85	675247.61	
10200.00	90.00	180.55	9420.00	-1087.34	-10.45	1087.39	0.00	595054.86	675246.65	
10300.00	90.00	180.55	9420.00	-1187.34	-11.41	1187.39	0.00	594954.86	675245.69	
10400.00	90.00	180.55	9420.00	-1287.34	-12.37	1287.39	0.00	594854.86	675244.73	
10500.00	90.00	180.55	9420.00	-1387.33	-13.33	1387.39	0.00	594754.87	675243.77	
10600.00	90.00	180.55	9420.00	-1487.33	-14.29	1487.39	0.00	594654.87	675242.81	
10700.00	90.00	180.55	9420.00	-1587.32	-15.25	1587.39	0.00	594554.88	675241.85	
10800.00	90.00	180.55	9420.00	-1687.32	-16.21	1687.39	0.00	594454.88	675240.89	
10900.00	90.00	180.55	9420.00	-1787.31	-17.17	1787.39	0.00	594354.89	675239.93	
11000.00	90.00	180.55	9420.00	-1887.31	-18.13	1887.39	0.00	594254.89	675238.97	
11100.00	90.00	180.55	9420.00	-1987.30	-19.10	1987.39	0.00	594154.90	675238.00	
11200.00	90.00	180.55	9420.00	-2087.30	-20.06	2087.39	0.00	594054.90	675237.04	
11300.00	90.00	180.55	9420.00	-2187.29	-21.02	2187.39	0.00	593954.91	675236.08	
11400.00	90.00	180.55	9420.00	-2287.29	-21.98	2287.39	0.00	593854.91	675235.12	
11500.00	90.00	180.55	9420.00	-2387.28	-22.94	2387.39	0.00	593754.92	675234.16	
11600.00	90.00	180.55	9420.00	-2487.28	-23.90	2487.39	0.00	593654.92	675233.20	
11700.00	90.00	180.55	9420.00	-2587.28	-24.86	2587.39	0.00	593554.92	675232.24	
11800.00	90.00	180.55	9420.00	-2687.27	-25.82	2687.39	0.00	593454.93	675231.28	
11900.00	90.00	180.55	9420.00	-2787.27	-26.78	2787.39	0.00	593354.93	675230.32	
12000.00	90.00	180.55	9420.00	-2887.26	-27.74	2887.39	0.00	593254.94	675229.36	
12100.00	90.00	180.55	9420.00	-2987.26	-28.70	2987.39	0.00	593154.94	675228.40	
12200.00	90.00	180.55	9420.00	-3087.25	-29.66	3087.39	0.00	593054.95	675227.44	
12300.00	90.00	180.55	9420.00	-3187.25	-30.63	3187.39	0.00	592954.95	675226.47	
12400.00	90.00	180.55	9420.00	-3287.24	-31.59	3287.39	0.00	592854.96	675225.51	
12500.00	90.00	180.55	9420.00	-3387.24	-32.55	3387.39	0.00	592754.96	675224.55	
12600.00	90.00	180.55	9420.00	-3487.23	-33.51	3487.39	0.00	592654.97	675223.59	
12700.00	90.00	180.55	9420.00	-3587.23	-34.47	3587.39	0.00	592554.97	675222.63	
12800.00	90.00	180.55	9420.00	-3687.22	-35.43	3687.39	0.00	592454.98	675221.67	
12900.00	90.00	180.55	9420.00	-3787.22	-36.39	3787.39	0.00	592354.98	675220.71	
13000.00	90.00	180.55	9420.00	-3887.22	-37.35	3887.39	0.00	592254.98	675219.75	
13100.00	90.00	180.55	9420.00	-3987.21	-38.31	3987.39	0.00	592154.99	675218.79	
13200.00	90.00	180.55	9420.00	-4087.21	-39.27	4087.39	0.00	592054.99	675217.83	
13300.00	90.00	180.55	9420.00	-4187.20	-40.23	4187.39	0.00	591955.00	675216.87	
13400.00	90.00	180.55	9420.00	-4287.20	-41.19	4287.39	0.00	591855.00	675215.91	
13500.00	90.00	180.55	9420.00	-4387.19	-42.16	4387.39	0.00	591755.01	675214.94	
13600.00	90.00	180.55	9420.00	-4487.19	-43.12	4487.39	0.00	591655.01	675213.98	
13700.00	90.00	180.55	9420.00	-4587.18	-44.08	4587.39	0.00	591555.02	675213.02	
13733.62	90.00	180.55	9420.00	-4620.80	-44.40	4621.01	0.00	591521.40	675212.70	PBHL



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Site: South Lusk 28 Fed #1H
Well: South Lusk 28 Fed #1H
Wellpath: 1

Date: 6/20/2012 Time: 09:21:42 Page: 3
Co-ordinate(NE) Reference: Well: South Lusk 28 Fed #1H, Grid North
Vertical (TVD) Reference: SITE 3810.1
Section (VS) Reference: Well (0.00N,0.00E,180.55Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
PBHL			9420.00	-4620.80	-44.40	591521.40	675212.70	32 37 29.662 N	103 45 51.235 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
930.00	930.00	0.000	0.000	Csg
2595.00	2595.00	0.000	0.000	Csg
3650.00	3650.00	0.000	0.000	Csg

Annotation

MD ft	TVD ft	
8703.80	8703.80	KOP
9828.80	9420.00	LP
13733.61	9420.00	PBHL

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
8830.66	8830.00	T. BSPG2 Limestone		0.00	0.00
9265.98	9210.00	T. BSPG2nd Sand		0.00	0.00
9426.60	9310.00	T.BSPG2nd Sand Tgt		0.00	0.00
	0.00	Formation 5		0.00	0.00

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: June 20, 2012

Job Number: _____

Customer: Occidental Permian Ltd.

Well Name: South Lusk 28 Fed #1H

API Number: _____

Rig Name: _____

Location: Lea Co, New Mexico (Nad 27)

Block: _____

Engineer: Patrick Rudolph

US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 596142.200 USFT	Latitude 32.6376066 DEG
East/West 675257.100 USFT	Longitude -103.7640072 DEG
Grid Convergence: .31°	
Total Correction: +7.22°	

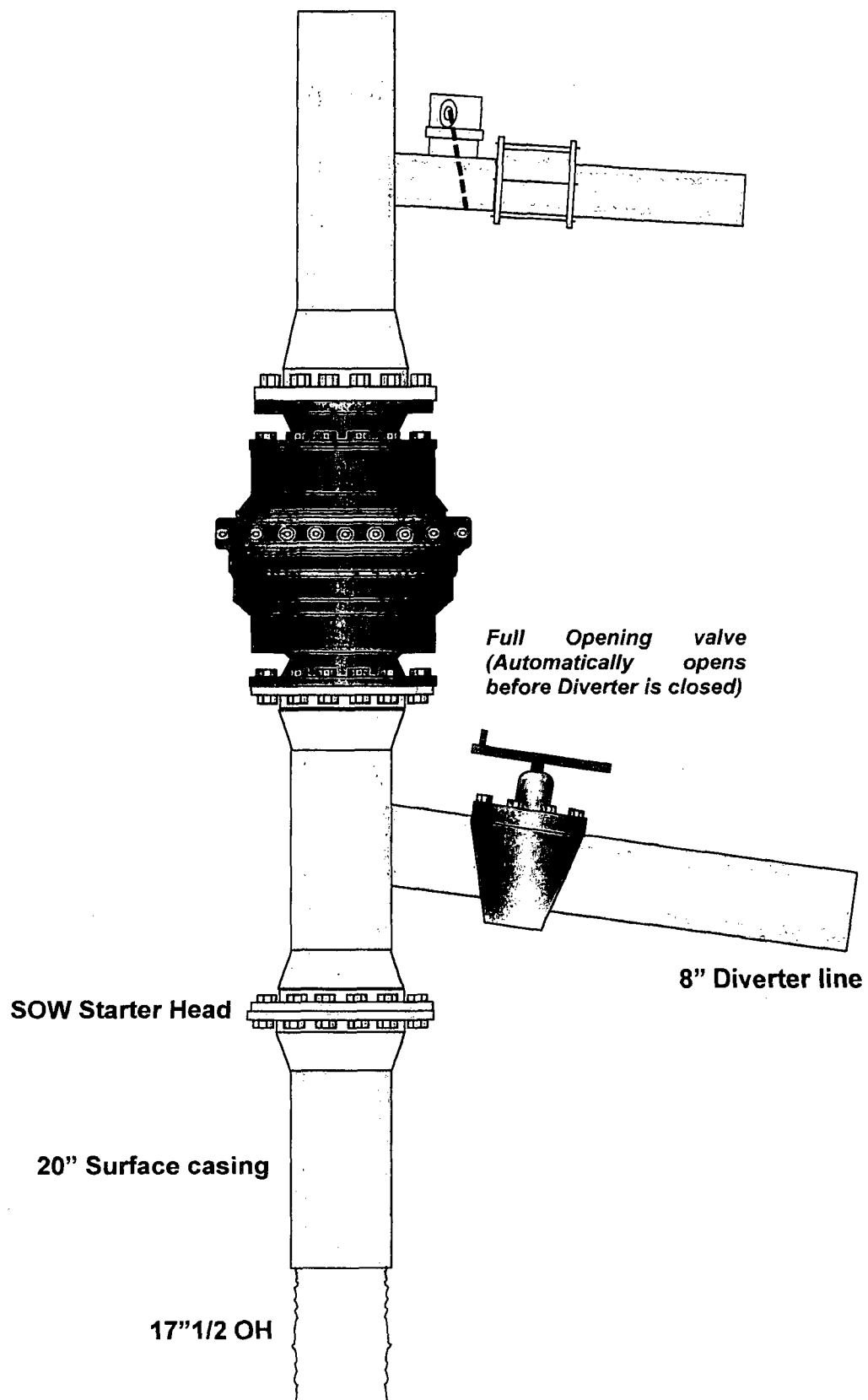
Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.63761° N	32° 38 min 15.384 sec
Longitude =	103.76401° W	103° 45 min 50.426 sec

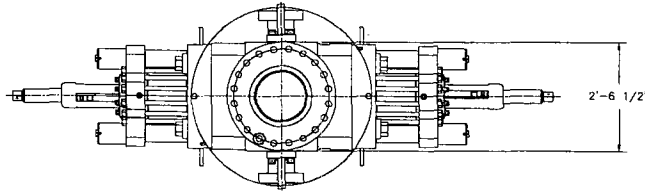
Magnetic Declination =	7.53°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6495
Local Field Strength =	48720 nT	Magnetic Vector X = 23784 nT
Magnetic Dip =	60.50°	Magnetic Vector Y = 3143 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42403 nT
Spud Date =	Dec 01, 2012	Magnetic Vector H = 23990 nT

Signed: _____

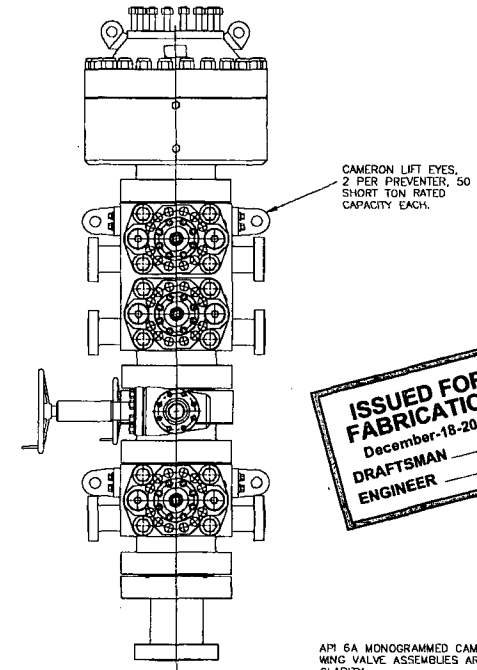
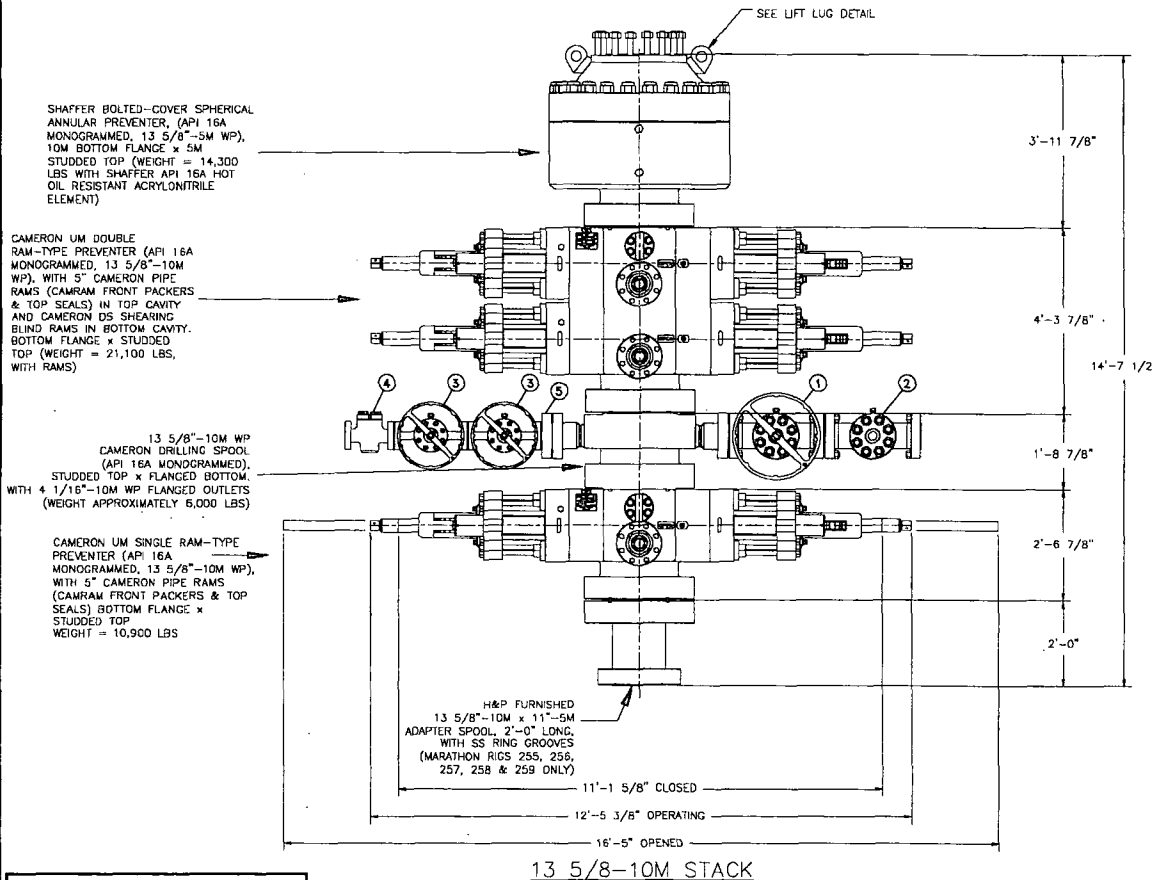
Date: _____

20" Casing Diverter Diagram





- LEGEND**
- ① - 4 1/16"-10M FLANGED END GATE VALVE
 - ② - 4 1/16"-10M FLANGED END GATE VALVE WITH DOUBLE ACTING HYDRAULIC ACTUATOR
 - ③ - 2 1/16"-10M FLANGED END GATE VALVE
 - ④ - 2 1/16"-10M FLANGED END CHECK VALVE
 - ⑤ - DOUBLE STUDDED ADAPTER



ISSUED FOR FABRICATION
December-18-2007
DRAFTSMAN
ENGINEER

API 6A MONOGRAMMED CAMERON CHOKE AND KILL WING VALVE ASSEMBLIES ARE NOT SHOWN FOR CLARITY

WEIGHTS DO NOT INCLUDE HOSES, ADAPTER SPOOLS OR QUICK CONNECT FITTINGS

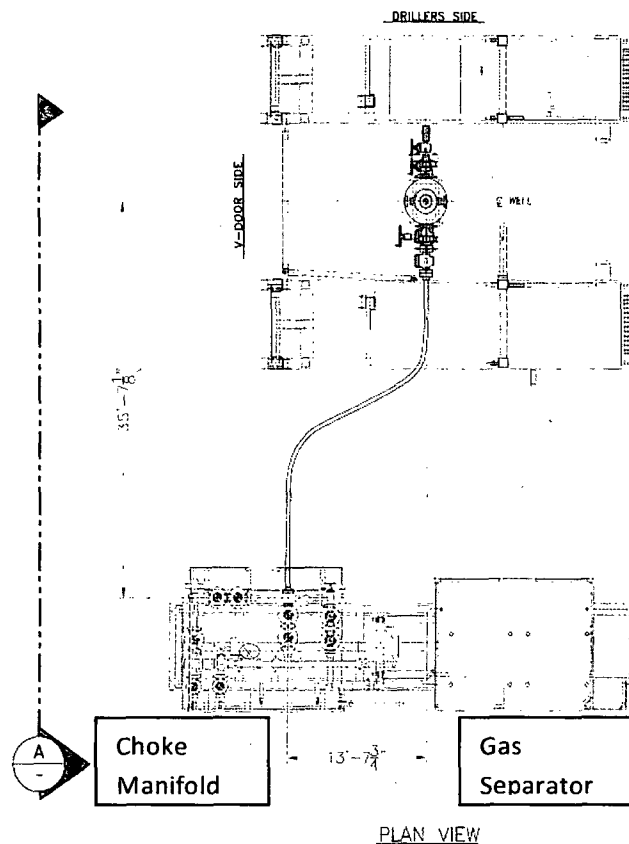
PROPRIETARY

THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER, WITHOUT THE PRIOR WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

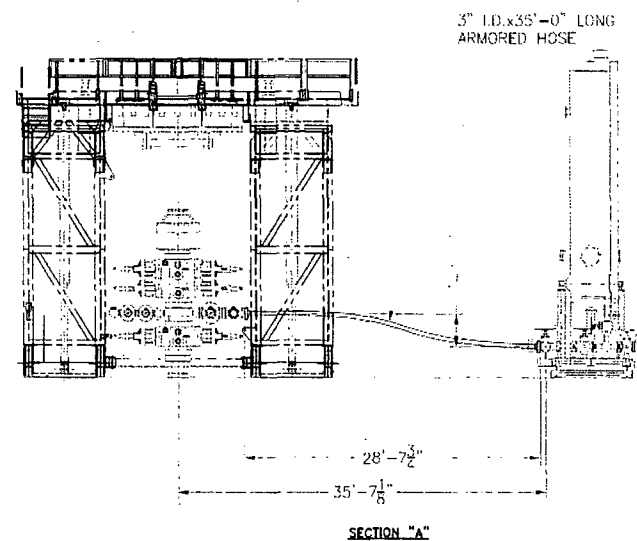
13 5/8-10M STACK

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

ENGINEERING APPROVAL		DATE	TITLE
12/18/07		JAV	13 5/8"-10M BOP 3 RAM STACK
4-10-07		JBG	FLEXRIG3
4-04-07		JBG	CUSTOMER: H&P
02-07-07		MWL	PROJECT: FLEXRIG3
06-13-02		MWL	DRAWN: MTS
DATE		DESCRIPTION	DATE: 6-5-02
REV		BY	DWG. NO.: 210-P1-07
SCALE: 3/4"=1'		SHEET: 1 OF 3	REV: E



→ To Shakers

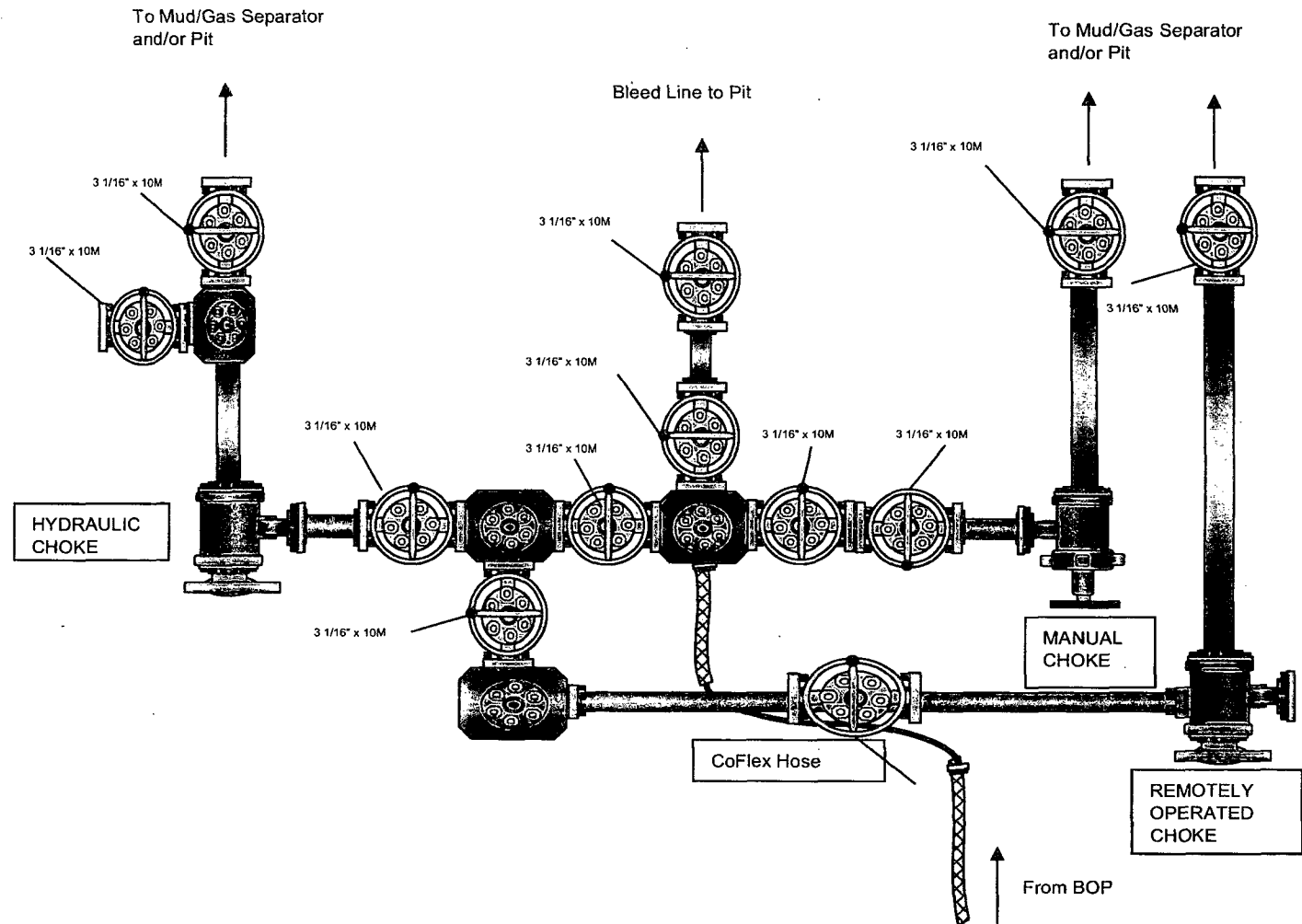


ISSUED FOR FABRICATION
December-19-2007
DRAFTSMAN _____
ENGINEER _____

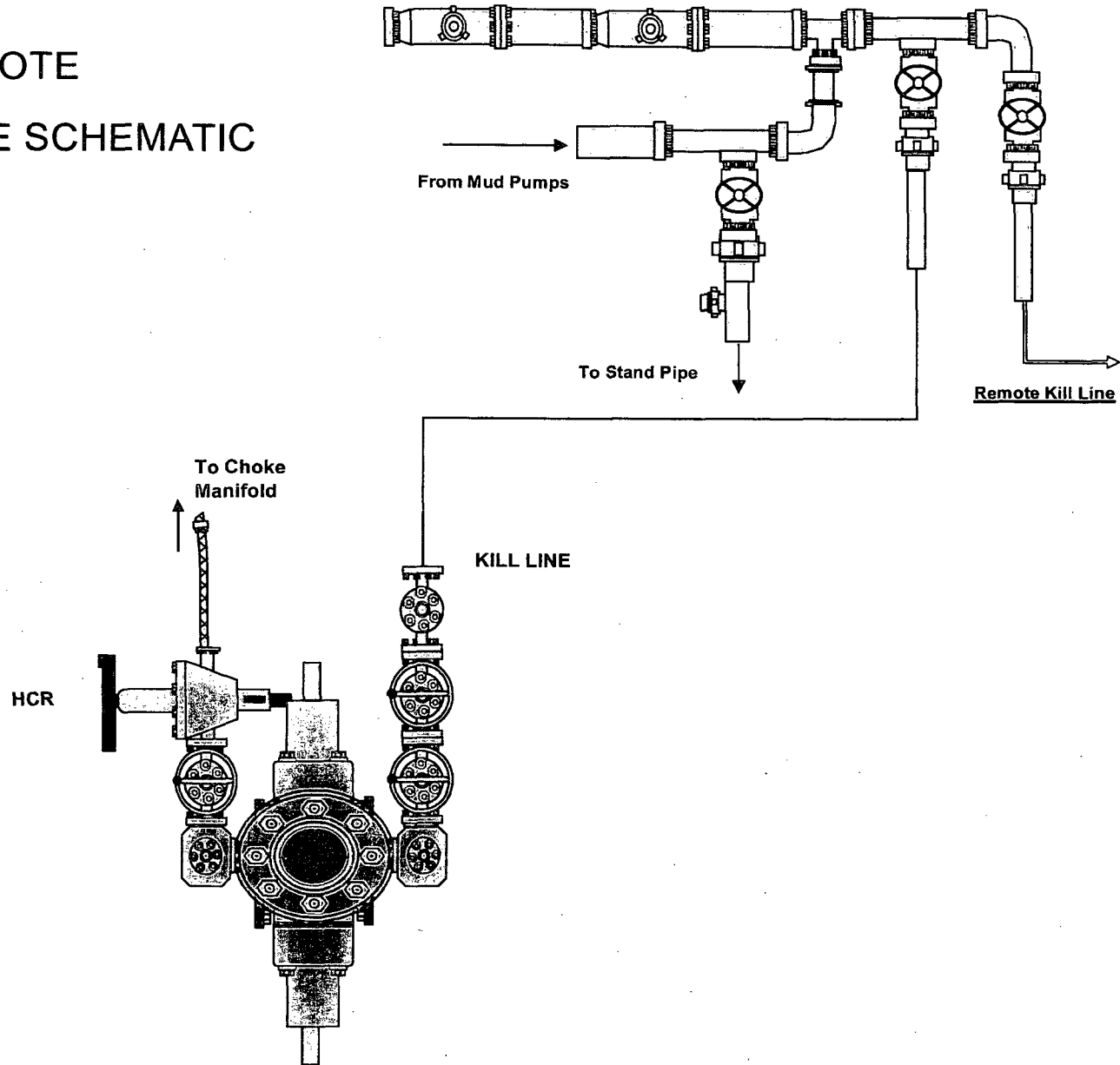
PROPRIETARY
THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF A QUALITY AUTHORIZED OFFICER OF HELMERICH & PAYNE INTL. DRILLING CO.

		HELMERICH & PAYNE	
		INTERNATIONAL DRILLING CO.	
ENGINEERING APPROVAL DATE		TITLE	
		CHOKE LINE SYSTEM	
		FLEXRIG3	
		CUSTOMER:	
		PROJECT:	
12/18/07	REVISED SHEET TOTAL CALLOUT	DRAWN: JBC	DATE: 4-10-07
REV	DATE	DESCRIPTION	BY
		SCALE: 3/16"=1'	SHEET: 2 OF 2
			210-P1-07 A

10M CHOKE MANIFOLD CONFIGURATION



10M REMOTE KILL LINE SCHEMATIC



CERTIFICATE OF CONFORMITY

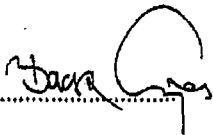
Supplier : CONTITECH RUBBER INDUSTRIAL KFT.
Equipment : 6 pcs. Choke and Kill Hose with installed couplings
Type : 3" x 10,67 m WP: 10000 psi
Supplier File Number : 412638
Date of Shipment : April. 2008
Customer : Phoenix Beattie Co.
Customer P.o. : 002491
Referenced Standards
/ Codes / Specifications : API Spec 16 C
Serial No.: 52754,52755,52776,52777,52778,52782

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

Signed :



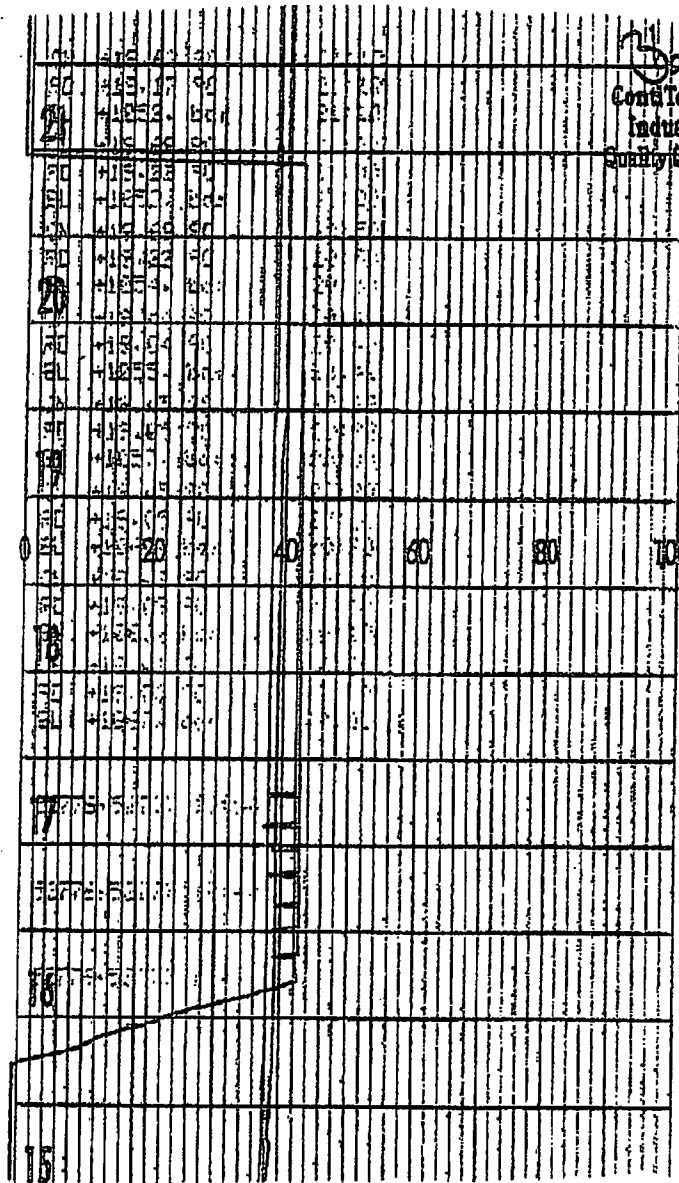
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)

Position: Q.C. Manager

Date: 04. April. 2008

Coflex Hose Certification

Page: 1/1



3000
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)



PA No	006330	Client	HELMERICH & PAYNE INT'L DRILLING	Client Ref	370-369-001	Page	1
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[illegible]

We hereby certify that these goods have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industry standards within the requirements of the purchase order as issued to Phoenix Beattie Corporation.

05/23/09

Coflex Hose Certification

Coflex Hose Certification

Form No 100/12



Phoenix Beattie Corp

11535 Brittonmore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail: mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	1
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
1	HP10CK3A-35-4F1 3" 10K 16C C&K HOSE x 35ft OAL CW 4.1/16" API SPEC FLANGE E/ End 1: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End 2: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange c/w BX155 Standard ring groove at each end Suitable for H2S Service Working pressure: 10,000psi Test pressure: 15,000psi Standard: API 16C Full specification Armor Guarding: Included Fire Rating: Not Included Temperature rating: -20 Deg C to +100 Deg C	1	1	0
2	SECK3-HPF3 LIFTING & SAFETY EQUIPMENT TO SUIT HP10CK3-35-F1 2 x 160mm ID Safety Clamps 2 x 244mm ID Lifting Collars & element C's 2 x 7ft Stainless Steel wire rope 3/4" OD 4 x 7.75t Shackles	1	1	0
3	SC725-200CS SAFETY CLAMP 200MM 7.25T C/S GALVANISED	1	1	0

Continued...

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days.
Returns may be subject to a handling charge.

Coflex Hose Certification

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 746	
PURCHASER: Phoenix Beattie Co.			P.O. N°: 002491		
CONTITECH ORDER N°: 412838		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 52777		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 ~ min.	
Pressure test with water at ambient temperature					
See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	917 913		AISI 4130	T7998A	
			AISI 4130	26984	
INFOCHIP INSTALLED			API Spec 16 C 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 AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date:	Inspector		Quality Control		
04. April. 2008			 ContiTech Rubber Industrial Kft. Quality Control Dept. (1)		

Coflex Hose Certification

Form No 100/12



Phoenix Beattie Corp

11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail: sales@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	2
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
4	SC725-132CS SAFETY CLAMP 132MM 7.25T C/S GALVANIZED C/W BOLTS	1	1	0
5	00CERT-HYDRO HYDROSTATIC PRESSURE TEST CERTIFICATE	1	1	0
6	00CERT-LOAD LOAD TEST CERTIFICATES	1	1	0
7	00FREIGHT INBOUND / OUTBOUND FREIGHT PRE-PAY & ADD TO FINAL INVOICE NOTE: MATERIAL MUST BE ACCOMPANIED BY PAPERWORK INCLUDING THE PURCHASE ORDER, RIG NUMBER TO ENSURE PROPER PAYMENT	1	1	0

Phoenix Beattie Inspection Signature :

Received In Good Condition : Signature

Print Name

Date

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days. Returns may be subject to a handling charge.