UNITED STATES DEPARTMENT OF THE INTERIOR -
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT -
GULF OF MEXICO REGION -

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED
   DATE: **14-OCT-2014** TIME: **0105** HOURS

2. OPERATOR: **Chevron U.S.A. Inc.**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Transocean Offshore -**
   REPRESENTATIVE: -
   TELEPHONE: -

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:

4. LEASE: **G27698**
   AREA: **KC** LATITUDE: -
   BLOCK: **10** LONGITUDE: -

5. PLATFORM:
   RIG NAME: **T.O. DISCOVERER INDIA**

6. ACTIVITY:
   - [X] EXPLORATION(POE)
   - [ ] DEVELOPMENT/PRODUCTION - (DOCD/POD) -

7. TYPE:
   - [ ] HISTORIC INJURY -
     - [ ] REQUIRED EVACUATION
     - [ ] LTA (1-3 days)
     - [ ] LTA (>3 days
     - [ ] RW/JT (1-3 days)
     - [ ] RW/JT (>3 days)
     - [ ] Other Injury
   - [ ] FATALITY
   - [ ] POLLUTION
   - [ ] FIRE
   - [ ] EXPLOSION
   - LWC
     - [ ] HISTORIC BLOWOUT
     - [ ] UNDERGROUND
     - [ ] SURFACE
     - [ ] DEVERTER
     - [ ] SURFACE EQUIPMENT FAILURE OR PROCEDURES
   - COLLISION [ ] HISTORIC [ ] >$25K [ ] <=$25K
   - [ ] STRUCTURAL DAMAGE
   - [ ] CRANE
   - [X] OTHER LIFTING DEVICE **Manriding Basket**
   - [ ] DAMAGED/DISABLED SAFETY SYS.
   - [X] INCIDENT >$25K **Billy Pugh Derrick Basket -**
   - [ ] H2S/15MIN./20PPM
   - [ ]
   - [ ] REQUIRED MUSTER
   - [ ] SHUTDOWN FROM GAS RELEASE
   - [ ] OTHER

6. OPERATION:
   - [ ] PRODUCTION
   - [X] DRILLING
   - [ ] WORKOVER
   - [ ] COMPLETION
   - [ ] HELICOPTER
   - [ ] MOTOR VESSEL
   - [ ] PIPELINE SEGMENT NO.
   - [ ] OTHER

8. CAUSE:
   - [ ] EQUIPMENT FAILURE
   - [X] HUMAN ERROR -
   - [ ] EXTERNAL DAMAGE
   - [ ] SLIP/TRIP/FALL
   - [ ] WEATHER RELATED
   - [ ] LEAK
   - [ ] UPSET H2O TREATING
   - [ ] OVERBOARD DRILLING FLUID
   - [ ] OTHER _____

9. WATER DEPTH: **3958** FT.

10. DISTANCE FROM SHORE: **218** MI.

11. WIND DIRECTION: **NNW**
    SPEED: **38** M.P.H.

12. CURRENT DIRECTION: **NNW**
    SPEED: **2** M.P.H. -

13. SEA STATE: **10** FT.

On October 14, 2014, at 01:05 hours after tour change, the aft drill crew was in the process of performing Preventive Maintenance (PM/PM's) on the Aft Pipe Racker System (PRS). A Permit to Work (PTW), man riding checklist, Emergency Rescue Plan, and two Written Risk Assessments (WRA) were completed. During the Toolbox Talk, the WRA's were reviewed. Due to the wind conditions (18 to 24 knots), the crew utilized a single person Billy Pugh Derrick Basket (BPDB) for the task. The WRA stated personnel entering the basket will utilize an inertia reel attached to a tugger, but no proper secondary personal fall protection independent from the basket was implemented. A tugger line was secured to the rig floor as an anchor, and a section of one inch manila rope was placed around the line which was secured to the inside railing of the BPDB to control the excess swinging of the basket. A Short Service Employee (SSE) Floor Man volunteered to go up in the basket, while the Middle Floor Man agreed to operate the tugger.

The drilling contractor's policy requires continuous hand signals be utilized as the primary means of communication while radios are used as supplemental communication. WRA-DID-1001 Work Basket Operations-Rig Floor step number three states in red "Note: Radios are not to be used. Hand signals are the only means to be used for man riding operations. Radios may be used as back up only." According to witness statements it was agreed radios would be the primary means of communication instead due to the basket being hoisted to a height of 110 feet above the rig floor. Two rig floor personnel were assigned to the tugger. The Senior Floor Man was the designated flagger and operated the line guide spooler while also monitoring the radio. The acting Assistant Driller (AD) was positioned in front of the PRS to monitor the ascent for signs of trouble. The acting Driller was supervising the task while the on tour Tool Pusher was inside the Driller's cabin attending to paperwork. During the ascent, the acting Driller received a call to relieve the Driller on the main side draw works and the AD assumed the supervisory role.

At a height of approximately 110 feet, the BPDB appeared to hang up on an unknown part of the derrick/PRS causing the basket to tilt. The "all stop" command was given by the rider using a hand held radio, but the flagger failed to hear the message. A second "all stop" command was then given by the rider and the command was heard. The basket continued to climb an additional three to four inches before stopping and a loud "pop" was heard by the rider as the basket tilted further forward.

At this point, the rider looked around for the source of the loud "pop" and realized major damage had occurred to the single main support arm and two lower arm braces had separated. The rider grabbed the anchor line for support and called "emergency, lower down easy," over the radio. Both hands were used by the rider to keep his weight off the basket while using his feet to steer the basket. The Senior Floor Man took control of the tugger while the Middle Floor Man took control of the line spooling guide.

After hearing the emergency over the radio, the Tool Pusher instructed the acting Driller to go outside to find out what happened.

When the basket touched the rig floor the hanging arm completely separated from the basket, just above the support braces.

After further investigation by BSEE, it was discovered the lessee:

Failed to develop an adequate Written Risk Assessment prior to performing the task to assess all threats of injury to personnel, damage to equipment or harm to the environment.

Failed to consider the weather (high winds-gusting up to 30 knots) as an environmental factor of safety in the WRA prior to performing the job task.

Failed to utilize hand signals as stated in the WRA. The use of radios was to be used as backup only.

Failed to modify the WRA to include the use of radios as the primary means of communication instead of the company policy required hand signals.

Failed to recognize a high noise area. During the man riding operation, the flagger

did not hear the initial "all stop" on the hand held radios and the Tugger Operator continued to raise the basket causing the occurrence of major damage to the single support arm and separation of the lower arm braces threatening the safety of the rider and personnel below on rig floor.

Lessee failed to ensure the hazard controls were in place as written in the WRA. According to the WRA, the Tugger Operator shall maintain visual contact at all times. The designated flagger was assigned additional task of monitoring the radio while operating the line guide spooler.

Rig crew installed an anchor line to secure the basket from swaying in high winds. If the basket were to fail, it would pull the rider to a free fall causing an impact on the rig floor.

Failed to station a team member on the fingerboard to monitor activity, maintain close proximity, or communication since radio communication was being utilized and the Tugger Operator could not maintain visual contact.

Was not aware of the Original Equipment Manufacturers (OEM) Recommended Practice for using the basket or the 400 pound safe working load rating of the basket (4,000 pound tensile strength). The crew also utilized the utility tugger (14,000 pounds hoisting capacity) to hoist the basket.

Failed to recognize the threat of personnel injury, or damage to equipment by lifting personnel with a utility winch with a hoisting capacity which far exceeded the tensile strength of the basket.

Failed to initiate SWA due to the poor weather conditions at the time of the job.

Failed to recognize the rider inside the basket and Middle Floor Man had not completed the contract driller's required man riding training before becoming involved with man riding operations, but instead it was recommended to be a good experience for learning.

Failed to identify the portion or component of the derrick or PRS that had the potential to cause the basket to hang up.

Failed to ensure the on tour Tool Pusher was involved in Written Risk Assessment prior to and during the man riding operation as required in the contractor policy, both WRA's, and the man riding checklist.

Failed to ensure the on tour Tool Pusher supervised the man riding operation as required in the contractor policy, both WRS's, and the man riding checklist.

After hearing the "emergency, lower down easy" radio transmission from the rider in the basket, the on tour Tool Pusher failed to supervise the emergency decent of the rider and basket and continued to prepare paperwork from the Driller's cabin.

It was discovered a Rescue Plan was written, but witness statements verify prior to the man riding operation, the drill crew failed to discuss the Rescue Plan. There was no Rescue Plan detailing retrieval procedures for a rider in the BPDB without proper secondary personal fall protection.

Failed to know or follow the Original Equipment Manufacturers requirements for operating the BPDB.

Recommended practice for the DB-1 Derrick- Man Riding Basket

1) DB-1 should not be utilized in weather, wind, or conditions the qualified person or rider considers to be unsafe.
2) Before any attempt is made to lift personnel with this basket, clear instructions should be given to all persons involved.
3) All personnel riding on a DB-1 should wear an approved full body harness attached

to a certified retractable lifeline designed for this purpose.

Failed to utilize proper secondary fall protection which created a threat of injury to personnel both in the basket and on the rig floor. The rider attached his full body harness lanyard to the inside of the basket handle (instead of above the air hoist line or another anchor point outside of the basket with a self-retracting lifeline (SRL) as per the Original Equipment Manufacturers (OEM) Recommended Practice).

Failed to ensure the OEM nylon safety strap was present and being utilized as recommended by OEM by attaching the top loop of the nylon strap along with the pad eye of the derrick basket utilizing a shackle from the tugger line to the derrick basket prior to man riding operations.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Failed to develop an adequate Written Risk Assessment prior to performing the task to assess all threats of injury to personnel, damage to equipment or harm to the environment.

Failed to consider the weather (high winds-gusting up to 30 knots) as an environmental factor of safety in the WRA prior to performing the job task.

Failed to utilize hand signals as stated in the WRA. The use of radios was to be used as backup only.

Failed to modify the WRA to include the use of radios as the primary means of communication instead of the company policy required hand signals.-

Failed to recognize a high noise area. During the man riding operation, the flagger did not hear the initial "all stop" on the hand held radios and the Tugger Operator continued to raise the basket causing the occurrence of major damage to the single support arm and separation of the lower arm braces threatening the safety of the rider and personnel below on rig floor.

Lessee failed to ensure the hazard controls were in place as written in the WRA. According to the WRA, the Tugger Operator shall maintain visual contact at all times. The designated flagger was assigned additional task of monitoring the radio while operating the line guide spooler.

Rig crew installed an anchor line to secure the basket from swaying in high winds. If the basket were to fail, it would pull the rider to a free fall causing an impact on the rig floor.

Failed to station a team member on the fingerboard to monitor activity, maintain close proximity, or communication since radio communication was being utilized and the Tugger Operator could not maintain visual contact.

Was not aware of the Original Equipment Manufacturers (OEM) Recommended Practice for using the basket or the 400 pound safe working load rating of the basket (4,000 pound tensile strength). The crew also utilized the utility tugger (14,000 pounds hoisting capacity) to hoist the basket.

Failed to recognize the threat of personnel injury, or damage to equipment by lifting personnel with a utility winch with a hoisting capacity which far exceeded the tensile strength of the basket.

Failed to initiate SWA due to the poor weather conditions at the time of the job.

Failed to recognize the rider inside the basket and Middle Floor Man had not completed the contract driller's required man riding training before becoming involved with man riding operations, but instead it was recommended to be a good experience for learning.

Failed to identify the portion or component of the derrick or PRS that had the potential to cause the basket to hang up.-

Failed to ensure the on tour Tool Pusher was involved in Written Risk Assessment prior to and during the man riding operation as required in the contractor policy, both WRA's, and the man riding checklist.

Failed to ensure the on tour Tool Pusher supervised the man riding operation as required in the contractor policy, both WRS's, and the man riding checklist.-

After hearing the "emergency, lower down easy" radio transmission from the rider in the basket, the on tour Tool Pusher failed to supervise the emergency decent of the rider and basket and continued to prepare paperwork from the Driller's cabin.

It was discovered a Rescue Plan was written, but witness statements verify prior to the man riding operation, the drill crew failed to discuss the Rescue Plan. There was no Rescue Plan detailing retrieval procedures for a rider in the BPDB without proper secondary personal fall protection.

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Failed to utilize proper secondary fall protection which created a threat of injury to personnel both in the basket and on the rig floor. The rider attached his full body harness lanyard to the inside of the basket handle (instead of above the air hoist line or another anchor point outside of the basket with a self-retracting lifeline (SRL) as per the Original Equipment Manufacturers (OEM) Recommended Practice).

Failed to ensure the OEM nylon safety strap was present and being utilized as recommended by OEM by attaching the top loop of the nylon strap along with the pad eye of the derrick basket utilizing a shackle from the tugger line to the derrick basket prior to man riding operations.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

1. Weather
2. Short Service Employee's (rider in the basket, and Tugger Operator).
3. Failure of Tool Pusher to be involved in the Written Risk Assessment (WRA) and supervising the man riding operations.-
4. Failure to initiate Stop Work Authority (SWA)

20. LIST THE ADDITIONAL INFORMATION:

Filled out the crane page with dates and information based on other lifting information available.-

Billy Pugh Derrick Basket	**Complete seperation of the main support arm and two secondary braces.**

ESTIMATED AMOUNT (TOTAL):

$25,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

No recommendations at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

See Attachment.

25. DATE OF ONSITE INVESTIGATION:

21-OCT-2014

26. ONSITE TEAM MEMBERS:

Daniel Gonzalez / Phillip Couvillion / James Holmes /

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

APPROVED DATE: **11-FEB-2015**

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: **12-NOV-2012**

Manufacturer: **BILLY PUGH DERRICK BASKET**

Manufacture date: **10-OCT-2010**

Make/Model: **BILLY PUGH DERRICK BASKET** / **BILLY PUGH DERRICK BASKET**

Any modifications since manufactured? Describe and include date(s).

What was the maximum lifting capacity at the time of the lift?

Static: **14000** Dynamic: **14000**

Was a tag line utilized during the lift? **Y**

Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies?

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up on an unknown part of the derrick/PRS causing the basket to tilt. The "all stop" command was given by the rider using a hand held radio, but the flagger failed to hear the message. A second "all stop" command was then given by the rider and the command was heard. The basket continued to climb an additional three to four inches before stopping and a loud "pop" was heard by the rider as the basket tilted further forward.
At this point, the rider looked around for the source of the loud "pop" and realized major damage had occurred to the single main support arm and two lower arm braces had separated. The rider grabbed the anchor line for support and called "emergency, lower down easy," over the radio. Both hands were used by the rider to keep his weight off the basket while using his feet to steer the basket. The Senior Floor Man took control of the tugger while the Middle Floor Man took control of the line spooling guide.
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List specific type of failure that occured during this incident.(e.g. cable parted, sticking control valve, etc.)

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If sling/loose gear failure occurred does operator have a sling/loose gear inspection program in place?

Type of lift:

Load Information

What was being lifted? **PERSONNEL**

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

One person in a Billy Pugh Derrick Basket

Approximate weight of load being lifted: **200**

Was crane/lifting device equipped with an operable weight indicator? **N**

Was the load identified with the correct or approximate weight? **N**

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

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If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

Billy Pugh Derrick Basket

Were personnel wearing a safety harness? **Y**

Was a lifeline available and utilized? **N**

List property lost overboard.

BILLY PUGH DERRICK BASKET

Rigger/Operator Information

Has rigger had rigger training? **Y** -

If yes, date of last training: **31-OCT-2013** -

How many years of rigger experience did rigger have? **2**

How many hours was the operator on duty prior to the incident? **12**

Was operator on medication when incident occurred? **N**

How many hours was the rigger on duty prior to the incident? **12**

How much sleep did rigger have in the 24 hours preceding this incident? **12**

Was rigger on medication when incident occurred? **N**

Were all personnel involved in the lift drug tested immediately following this incident?

Operator: **N** Rigger: **N** Other:

While conducting the lift, was line of sight between operator and load maintained? -

N -

Does operator wear glasses or contact lenses? **N** -

If so, were glasses or contacts in use at time of the incident? **N** -

Does operator wear a hearing aid? **N** -

If so, was operator using hearing aid at time of the incident? N -

What type of communication system was being utilized between operator and rigger at time of this incident?

RADIO/VHF

For crane only:

What crane training institution did crane operator attend?

Where was institution located? -

Was operator qualified on this type of crane? **N** -

How much actual operational time did operator have on this particular crane involved in this incident?

Years: Months

List recent crane operator training dates.

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? **N**

How many years of experience did operator have operating the specific type of-lifting device involved in the incident?-

0

Inspection/Maintenance Information

For crane only:

Is the crane involved classified as Heavy, Moderate or Infrequent use.

Was pre-use inspeciton conducted?

For the annual/quarterly/monthly crane inspections, please fill out the following information:

What was the date of the last inspection?

Who performed the last inspection?

Was inspection conducted in-house or by a 3rd party?

Who qualified the inspector?

Does operators' policy require load or pull test prior to heavy lift?

Which type of test was conducted prior to heavy lift?

Date of last pull test: Load test:

Results:

If fail explain why:

Test Parameters: Boom angle: Radius: -

What was the date of most recent crane maintenance performed? -

Who performed crane maintenance? (Please clarify persons name or company name.) -

Was crane maintenance performed in-house or by a third party? -

What type of maintenance was performed? -

For other material-handling equipment only:

Was equipment visually inspected before the lift took place? **Y**

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

Billy Pugh Derrick Basket

Safety Management Systems

Does the company have a safety management program in place? **N**

Does the company's safety management program address crane/other material-handling equipment operations?

N

Provide any remarks you may have that applies to the company's safety management program and this incident?

Did operator fill out a Job Safety Analysis (JSA) prior to job being performed?

Y

Did operator have an operational or safety meeting prior to job being performed?

N

What precautions were taken by operator before conducting lift resulting in incident?

Procedures in place for crane/other material-handling equipment activities:

Did operator have procedures written? **N**

Did procedures cover the circumstances of this incident? **N**

Was a copy available for review prior to incident? **N**

Were procedures available to MMS upon request? **N**

Is it documented that operator's representative reviewed procedures before conducting lift?

Y

Additional observations or concerns:

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