## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT PACIFIC OCS REGION

## ACCIDENT INVESTIGATION REPORT For Public Release

1. OCCURRED DATE: STRUCTURAL DAMAGE 07-JUN-2012 TIME: 0950 HOURS CRANE OTHER LIFTING DEVICE 2. OPERATOR: Beta Operating Company, LLC DAMAGED/DISABLED SAFETY SYS. REPRESENTATIVE : INCIDENT >\$25K TELEPHONE: H2S/15MIN./20PPM CONTRACTOR: REOUIRED MUSTER REPRESENTATIVE: SHUTDOWN FROM GAS RELEASE TELEPHONE: OTHER 3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR 6. OPERATION: ON SITE AT TIME OF INCIDENT: X PRODUCTION DRILLING 4. LEASE: P00300 WORKOVER AREA: LB LATITUDE: COMPLETION BLOCK : 6438 LONGITUDE: HELICOPTER MOTOR VESSEL PIPELINE SEGMENT NO. 5. PLATFORM: ELLY OTHER RIG NAME: 8. CAUSE: EXPLORATION (POE) 6. ACTIVITY: X DEVELOPMENT/PRODUCTION EQUIPMENT FAILURE (DOCD/POD) X HUMAN ERROR 7. TYPE: EXTERNAL DAMAGE SLIP/TRIP/FALL X HISTORIC INJURY REQUIRED EVACUATION WEATHER RELATED 1 LEAK LTA (1-3 days) UPSET H20 TREATING x LTA (>3 days 1 OVERBOARD DRILLING FLUID RW/JT (1-3 days) OTHER RW/JT (>3 days) Other Injury 9. WATER DEPTH: 265 FT. FATALITY POLLUTION 10. DISTANCE FROM SHORE: 9 MI. FIRE EXPLOSION 11. WIND DIRECTION: LWC | HISTORIC BLOWOUT SPEED: M.P.H. UNDERGROUND SURFACE 12. CURRENT DIRECTION: DEVERTER SPEED: M.P.H. SURFACE EQUIPMENT FAILURE OR PROCEDURES COLLISION HISTORIC >\$25K <=\$25K 13. SEA STATE: FT. 14. PICTURES TAKEN: NO 15. STATEMENT TAKEN: NO MMS - FORM 2010 PAGE: 1 OF 6 EV2010R 18-MAR-2013

The job being done by A&E Welding on the morning of June 7, 2012 was the demolition of an inactive 18; water injection line to make room for the proposed installation of a new powerhouse unit. A&E personnel were cutting the line into sections for removal. One section of the injection line (estimated to be about 10 feet in length) was close to being ready for removal, so the two ends of the line needed to be supported prior to making the final cuts. Portable chain falls suspended from above were to be used to support the line and assist with moving it out of place. To provide overhead support for the portable chain falls, temporary support devices known as ¿strong backs¿ are used to span the 4-foot distance between existing overhead structural I-beams (that support the platform deck above). The strong backs being used for this application each consist of two high-strength parallel pipe-like rails connected together at several locations. They each weigh about 47 pounds and are 3 feet 11 inches in length. They are clamped to the I-beams using removable A load-rated choke line is placed around the strong back and the chain fall clamps. is connected to the choke line. The chain fall, in turn, provides the support for the section of pipeline to be removed. On the morning of June 7, 2012, the southernmost strong back/chain fall assembly was already in place, supporting the south end of the section of 18; line planned for removal. The northerly strong back needed to be put in place to support the northern end of the line prior to completing the final cut. Brand Energy and Infrastructure Services (Brand) provided the scaffolding, structural support devices, and protective containment structure in support of A&E¿s demolition job. This is typical of the type of services Brand routinely provides to Beta Offshore for all types of platform work. of A&E that the northerly strong back foreman for Brand, was notified by elected to assist with this himself and promptly needed to be placed. Mr. climbed up to install the strong back. With proper fall protection, Mr. climbed up the scaffolding that was set up to provide access to higher sections of the injection line and also to support a full physical containment structure around the work area. He then used available structures higher up to stand on while installing the strong back. The task of installing this type of strong back typically requires two people, one at each end, to attach and secure the clamps to , in his effort to assist A&E, felt confident that he could the I-beams. Mr. install the strong back by himself. Having just spoken to Mr. , Mr. felt confident that Mr. was aware this installation was being done. Looking saw no indication that Mr. was still in the work area. Part down, Mr. of the scaffolding in and around this work area consisted of a supported plywood platform. The platform was used to stand on to access higher sections of the injection line. It also could provide overhead protection to anyone who might be on had not left the work area, he could possibly have been the deck below. If Mr. beneath this platform, but in any case, according to Mr. , he was not visible from the location where the strong back was being installed. As Mr. Waa tightening the first of two clamps, the strong back shifted sideways and lost support at the opposite end. Its weight could not be supported by the single remaining clamp and it fell approximately 24 feet to the deck below. It hit something on the way down, which reportedly sounded like something inert, possibly the injection line. looked down and still saw no indication that anyone was there. He came Mr. down and was surprised to find Mr. with head and face injuries under the attendance of two coworkers.

Mr. was being attended by and , both with A&E. Mr. had just walked into the containment area (beneath the plywood platform) toward Mr. when he heard a crashing sound and then saw that Mr. had been struck in the head. He did not witness the actual impact. Mr. was also in the vicinity but did not see the impact either.

, foreman for A&E, became aware of the incident and came to the location. Despite several lacerations to the forehead, right cheek, nose and lip and with significant bleeding, Mr. was on his feet and coherent and elected to walk across the bridge to the Platform Ellen Compliance office to get first aid. He was accompanied by and .

Based on the various obstructions between the initial and final positions of the

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PAGE: 2 OF 6 18-MAR-2013 strong back, it is believed that it hit something inert first and then was deflected toward Mr. head and face. It is believed, based on the recollection of Mr. that Mr. was not beneath the protective plywood platform, but was likely standing beneath a 12-14; wide electrical cable tray that crossed this area, and was therefore out of the view of Mr. . Although the impact cracked Mr. hard hat and caused significant cuts to the face, it is believed, based on the weight of the strong back, that Mr. did not receive the full impact of its fall.

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

a. Describe any unsafe act(s) or ¿At Risk Behavior(s); that contributed to the incident as a causal factor, and why did the Worker make the wrong decision or exhibit the behavior:

Beta Offshore recognizes Mr. as being a highly skilled and experienced scaffold professional. He is a journeyman in the trade and has being working with offshore (and onshore) scaffolding for many years. Betags observation of Mr. work, management skills and professional demeanor over the years is consistent with this description. Nevertheless, the following conclusions have been

reached during this investigation:

1. Mr. elected to perform an installation (of the strong back) that is typically conducted by two people. At this point it is not known whether Brand has a specific policy regarding such an installation.

2. Although Mr. truly believed that Mr. was not in a vulnerable position below, or even present in the work area below, he did not apply preventative measures (such as barricades or signs) to ensure that no workers would enter the work area below while he was installing the strong back device. He thought Mr, knew what was going on and would take necessary precautions. In addition to Mr. being in the work area, Mr. also entered the work area as the strong back fell to the deck. He was not in the path of its travel and he had the protection of the overhead plywood platform, but he was also potentially vulnerable to the deflection of a falling object.

In addition to the items listed above, it is also noted that if Mr. requested the strong back to be installed, he should have been aware of an overhead hazard during its installation and should have remained outside of the work area until the installation was completed.

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

a. Describe any failures or unsafe condition(s) related to facilities, equipment, tools, machinery, PPE, monitoring, etc. that contributed as causal factor(s) to the incident:

All proper PPE was worn by the injured person, Mr. . In fact, it is quite certain that Mr. hard hat prevented much more serious injury to his head, as it was cracked by the impact. It is possible, but not conclusive, that the impact of the strong back device to Mr. safety glasses may have exacerbated the injury to the cheekbone area below his right eye. Additional details regarding the incident will be

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forthcoming over the next few days.

The root causes of this incident are at this time considered to be primarily behavioral in nature.

b. Describe any UNSAFE condition(s) related to training, supervision, policy, procedures and practices that contributed as causal factors to the incident: Although both Mr. and Mr. have had significant safety training and are aware of the policies and procedures that pertain to the work they were involved with, the fact that they exhibited the unsafe behaviors listed in box a. above indicates that additional specific training, or refresher training, is warranted. Both Brand and A&E take this incident very seriously and have expressed their full commitment to understanding exactly what happened, and then employing whatever measures are necessary to prevent a similar incident from occurring in the future.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

All pesonnel working around scaffolding must be aware of other workers and their activites above and below. Personnel should be aware of the hazzards of falling items when working below others.

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-112 was issued to operator for failing to provide for personnel safety.

25. DATE OF ONSITE INVESTIGATION: 28. ACCIDENT CLASSIFICATION:

11-JUN-2012

MINOR

26. ONSITE TEAM MEMBERS: Bobby Fuller / 29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Phil Schroeder

27. OPERATOR REPORT ON FILE: YES

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