

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: 02-APR-2010 TIME: 1322 HOURS

2. OPERATOR: Northstar Offshore Energy Partner;
REPRESENTATIVE: Chris Hildebrandt
TELEPHONE: (713) 626-9696
CONTRACTOR:
REPRESENTATIVE: Dalvin Warren
TELEPHONE: (318) 964-2567

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

4. LEASE: 00577
AREA: EI LATITUDE: 28.399
BLOCK: 208 LONGITUDE: -91.29967

5. PLATFORM:
RIG NAME: SPARTAN 208

6. ACTIVITY: 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
 OTHER LIFTING DEVICE
 DAMAGED/DISABLED SAFETY SYS.
 INCIDENT >\$25K Generator Fire
 H2S/15MIN./20PPM
 REQUIRED MUSTER
 SHUTDOWN FROM GAS RELEASE
 OTHER

6. OPERATION:

PRODUCTION
 DRILLING
 WORKOVER
 COMPLETION
 HELICOPTER
 MOTOR VESSEL
 PIPELINE SEGMENT NO.
 OTHER

8. CAUSE:

EQUIPMENT FAILURE
 HUMAN ERROR
 EXTERNAL DAMAGE
 SLIP/TRIP/FALL
 WEATHER RELATED
 LEAK
 UPSET H2O TREATING
 OVERBOARD DRILLING FLUID
 OTHER _____

9. WATER DEPTH: 98 FT.

10. DISTANCE FROM SHORE: 48 MI.

11. WIND DIRECTION: SE
SPEED: 8 M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: 4 FT.

17. INVESTIGATION FINDINGS:

On 4/2/2010 at approximately 1322, the rig electrician called out a fire in the engine room. The outboard generator engine was on fire and the rig lost electrical power. The alarm was sounded and all hands reported to their assigned stations. The fire team reported to the scene and began extinguishing the fire in the outboard engine room with CO2 and Purple-K extinguishers. At approximately 1350, the fire was extinguished and the outboard engine room was ventilated and damage assessed. The stand-by generator was then put on line and electrical power was restored to the facility. At approximately 1445, the USCG and MMS were notified of the incident. There were no personnel injuries or environmental pollution.

The fire resulted in a cover from the air box (the engine's upper chamber) being blown off and flying into a nearby wall. Charring was present inside the air box near the blown-off air box cover. Outside of the blown-off air box cover, the nearby scavenging pump was burnt and the surrounding paint was heat blistered. Both pressure reliefs had been activated in the crankcase (the engine's lower chamber). The air filters on both of the engine's air blowers were fire damaged. Further inspection by an EMD Mechanic on 4/3/10 revealed that seals and gaskets were also damaged.

On 4/7/10, EMD Mechanics partially disassembled the engine and upon examining the left bank blower, found that the quill shaft was broken and that the blower was destroyed. Blower seizure caused the quill shaft to shear, allowing communication between the crankcase and air box. With no blower to force cool air in and hot exhaust air out of the air box, the temperature and pressure built until the crankcase pressure reliefs were activated to result in the air box cover being blown off. Air was able to enter the air box and mix with the hot fumes to create the fire. The blower's drive gear bushings were loose and damaged with no other damage found except that concentrated around the blower. The blower and air box cover on this 1977 model engine were prone to failure due to the engine's service life (approximately 33 years).

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

Seizure of the blower allowed temperature and pressure to build inside the crankcase and air box until the air box cover was blown off. Air was able to enter the air box and mix with the hot fumes to create the fire.

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

This 1977 model engine, blower and air box cover were prone to failure due to its service life (approximately 33 years).

20. LIST THE ADDITIONAL INFORMATION:

Corrective Action:

Increased maintenance or unit replacement may be advised due to the engine's service life. A compression type shutdown may be considered to expedite shutdown in order to

prevent future fires.

21. PROPERTY DAMAGED: NATURE OF DAMAGE:
Property damage includes the blower, an Mechanical, Fire
air box cover, gaskets and seals, various
paint and charring damages.

ESTIMATED AMOUNT (TOTAL): \$30,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:
Due to the specific nature of this incident, the Lafayette District has no
recommendations to report to the Regional Office

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:
The operator was in possession of a maintenance record for the unit.

25. DATE OF ONSITE INVESTIGATION:
06-APR-2010

26. ONSITE TEAM MEMBERS:
Tom Basey / Wade Guillotte / Chris
Adams / Johnny Serrette /

29. ACCIDENT INVESTIGATION
PANEL FORMED: NO
OCS REPORT:

30. DISTRICT SUPERVISOR:
Elliott S. Smith

APPROVED

DATE: 08-JUN-2010

FIRE/EXPLOSION ATTACHMENT

1. SOURCE OF IGNITION: **blower failure**

2. TYPE OF FUEL: GAS
 OIL
 DIESEL
 CONDENSATE
 HYDRAULIC
 OTHER **temperature and pressure**

3. FUEL SOURCE: **Failed blower allowed communication between crankcase and air box**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE
KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **NO**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED: HANDHELD
 WHEELED UNIT
 FIXED CHEMICAL
 FIXED WATER
 NONE
 OTHER

INJURY/FATALITY/WITNESS ATTACHMENT

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME :

HOME ADDRESS :

CITY

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :