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

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **04-DEC-2006** TIME: **2300** HOURS

2. OPERATOR: **W & T Offshore, Inc.**
   REPRESENTATIVE: **F.A. Daigle**
   TELEPHONE: **(337) 769-2572**
   CONTRACTOR:
   REPRESENTATIVE:
   TELEPHONE:

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

4. LEASE: **00372**
   AREA: **MP** LATITUDE:
   BLOCK: **69** LONGITUDE:

5. PLATFORM: **E**
   RIG NAME:

6. ACTIVITY:
- [ ] EXPLORATION(POE)
- [X] 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
- [X] POLLUTION
- [ ] FIRE
- [X] 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.
- [X] INCIDENT >$25K **Platform Damage**
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

6. OPERATION:
- [X] PRODUCTION
- [ ] 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: **48** FT.

10. DISTANCE FROM SHORE: **11** MI.

11. WIND DIRECTION: **NW**
    SPEED: **37** M.P.H.

12. CURRENT DIRECTION: **NE**
    SPEED: **14** M.P.H.

13. SEA STATE: FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

At approximately 09:45 on 12/4/2006, there was a process upset on MP 69D platform. This closed the incoming boarding valve from MP 69 E. The E-1 well was the only well flowing into this line at the time. The operators tried to catch the boarding valve before the Echo platform shut in, but did not do it in time. At approximately 10:45 the operators on MP 69D heard a loud boom. They went outside the quarters and discovered that it had come from MP 69 Echo. They could smell the gas in the air. They called the field boat over to go over and start the investigation. On arrival at Echo they observed missing grating and damage to the riser. They thought that the 6" pipeline had burst. They radioed back their finding to the Lead Operator on MP 69D and he called the situation into his management. The decision was made to shut down the investigation that night due to weather. Pollution volume estimated at 25 to 30 gallons.

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

1) Improper installation of safety devices.
2) Relays on the E-1 Well's SSV and Wing valves were pinned open. This by-passed the designed function. The well could not shut in.

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

1) Not implementing safety designed by MMS approved SAFE CHART. If the proper design had been installed the well would have shut-in on a PSH.

2) Violations for Federal Regulations in flowing well E-1 in by-pass. E-1 well could not shut-in and caused the over pressure of the 4" pipeline.

3) One report from a subject matter expert states the E-1 well had to be pinned open in order to flow due to the panel logic at the time of the incident. At one point both wells flowed into the 6" pipeline. The logic for the safety system would shut in both wells if there was a PSH/L activated on the 6" pipeline. The interface had been disconnected after the E-1 well was switched to the 4" pipeline. The panel tech states that there was no way the well would stay in service due to the fact that by disconnecting the interface it blocked the supply to the E-1 well SSV & wing valves relays and they would not stay in service. You would have to pin the relays out on both the SSV and WING Valves in order to get the supply pressure to the actuators to open the valves. He also stated even if the interface had been connected it would have been the same results because with the 6" pipeline out of service it had 0 psi on it and the PSL would not have cleared to allow the supply to the wells relays. When the instrument Technician removed the interface all together from the well panel, Well E-l relays for the SSV and Wing valve came in service.

(Continued in Item 20 Additional Information)

20. LIST THE ADDITIONAL INFORMATION:

(Continued from Item 19)
W&T offshore had a piping failure analysis done to see if it was material/installation problem. Report stated that using the lowest yield strength of the pipe material shown on the MTR's provided by W&T Offshore, Barlow's formula indicates that the line had seen pressures in excess of 7000 psi. There was obviously an operational upset since

the ambient temperature design pressure of the line is 2220 psi and the hydrostatic test pressure was 3350 psi, according to W&T Offshore. E-1 well shut in tubing pressure was 10,000 psi. It was the only well flowing into the pipeline. With the incoming boarding valve closed at MP 69 Delta and the E-1 well pinned open the well would pressure up against the boarding valve until the maximum shut-in tubing pressure was reached or until over pressure would cause a piping failure.

21. PROPERTY DAMAGED:

Pipe failure on the E-1 flowline/pipeline. Damage to the facility structure, grating, crane power pack and riser.

NATURE OF DAMAGE:

Pipeline rupture.

ESTIMATED AMOUNT (TOTAL): **$230,996**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The New Orleans District makes no recommendations to the Office of Safety Management.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-115 - 30 CFR.250.802 (a)
(a) General. All production facilities, including separators, treaters, compressors, headers, and flowlines shall be designed, installed, and maintained in a manner which provides for efficiency, safety of operation, and protection of the environment. Operator's safety system was compromised due to improper changes made in the safety system logic in the panel.

IS EACH SURFACE OR SUBSURFACE SAFETY DEVICE, WHICH IS BYPASSED OR BLOCKED OUT OF SERVICE, OUT OF SERVICE DUE TO START-UP, TESTING, OR MAINTENANCE AND IS IT FLAGGED AND MONITORED BY PERSONNEL?

25. DATE OF ONSITE INVESTIGATION:

04-DEC-2006

26. ONSITE TEAM MEMBERS:

Perry Jennings /

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

Troy Trosclair

APPROVED

DATE: **02-OCT-2007**