

## NARRATIVE

Inspection Number	309913580
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**COVERAGE INFORMATION:** Cyclone Drilling is an oil drilling company that performs work throughout the upper western United States. The company has over 600 employees and is capable of working multiple job sites. The corporate offices are located in Gillett Wyoming.

**NATURE AND SCOPE:** CSHO on site as part of reported fatality. Fatality/Catastrophe Report number 080300. Location was listed as Grizzly Well #13-6H McKenzie County, ND.

**OPENING CONFERENCE:** Opening conference was conducted at approximately 12:30 PM on 04/05/06 with Tom Taylor (Safety Supervisor) and Joe kern (Drilling Supervisor). Credentials were presented and accepted. Nature and scope of inspection were explained. Use of video camera, employee interviewing and trade secrets were discussed.

**INSPECTION:** CSHO conducted initial site survey on the afternoon of 04/05/06.

**Well DESCRIPTION:** The Oil Drilling Rig was in the process of erection when the fatality occurred. The concrete in the well head had just been poured. The drilling rig had been on site for approximately four days.

**ACCIDENT OVERVIEW:** At approximately 0900 on 04/04/06, the victim was observed positioning under an erected oil gas separator when the cat head rope holding the gas separator tank in a vertical position broke and fell. Basic first aid was provided by trained responders on site. 911 emergency phone calls were made. Due to the remote location ambulance response time was somewhere around 30 minutes. Victim was pronounced dead upon arrival at hospital.

### Gas Separator Installation Process:

1. The gas separator is a tank that is attached to a mobile skid. The tank is attached to the skid with two hinges. The hinges are secured with large steel tubes that run through them.
2. The gas separator is carried with one hinge secured by a steel tube until it is ready to be installed.
3. The gas separator tank is raised from a horizontal position once it is on location by a crane or other device to a vertical position and the other steel tube is pushed through the hinge securing the tank in a vertical position.

### Installation on The Day of The Accident:

1. The gas separator was moved into position by an all terrain forklift.
2. The gas separator was being raised by a cathead hoisting device attached to a rope.
3. The gas separator tank had been raised from the horizontal to the vertical position just prior to the accident and then lowered to reposition the separator to ensure that it was in a vertical position.
4. The gas separator tank was lowered by both the cathead hoisting mechanism and the forklift.
5. The gas separator was moved by the forklift to ensure it raised to a more vertical position.
6. The gas separator was then raised again by the cathead hoisting mechanism to a vertical position.
7. The victim who was the left the forklift was in and positioned between the vertical gas separator tank and the support frame below the elevated tank prior to installation of the steel tubes through the hinge for tank securement.
8. The victim signaled the assistant driller to raise the cathead hoisting device a little higher to get the steel tube through the hinge.
9. The rope attached to the hoisting device broke, releasing the gas separator tank which crushed the victim between the gas separator tank and the gas separator frame.

### Facts Bearing On The Incident:

1. The approximate weight of the tank was 3,400 pounds.
2. The cathead hoisting rope was rated from the seller of the rope for 12,500 pounds.
3. The seller of the rope had no technical information verifying the ropes rated capacity.

4. The rope had been purchased within 30 days of the accident.
5. The rope had been in service for 4 days prior to the accident.
6. The rope had been inspected prior to installation on the drilling rig.
7. The drilling rig had just come out of rebuild and this was its first project after being retro-fitted.
8. The majority of the drilling crew were knew highers hired for this well project.
9. The victim was the \_\_\_\_\_ and had the greatest level of experience on site.
10. The cathead rope went over two pulleys to a chain sling. The tank was already hinged on one side. There was a mechanical advantage to the lift that was greater than one that would have reduced the weight to less than 3,400 pounds.
11. The assistant driller relayed hand signals to the driller from the victim to raise and lower the gas separator.
12. There were two employees on either side of the gas separator to push the steel tube through the hinge.
13. There was not a written installation procedure for the gas separator.
14. There was an attachment for the loader/forklift designed to lift the tank on site. It was not used at the time of the accident.

**Other issues:**

- 1.
2. The cathead had raised other equipment weighing more than the gas separator weight.
- 3.
4. The company man and the drilling supervisor both told the victim to wait until Thursday for the crane to arrive.
5. The gas separator was late arriving at the drilling site.
6. The gas separator was normally installed by a crane.
7. The rig was only operating 12 hours a day.
8. The only incentive pay was for safety.
9. This well was a wild cat drill.
- 10.
11. This was the victims first drill rig that was specifically \_\_\_\_\_ to run for the company.
12. Gas separator was not critical to the operation at the time of the accident since the well head had just been concreted in and deep drilling had not started and was not projected to start for a few more days.

CSHO review of company work history showed previous OSHA inspections and citations. Company was used by the state of Wyoming for its CSHO Well Drilling Training this past year.

**OTHER SAFETY ITEMS:** Site was inspected by CSHO. Programs were reviewed by CSHO. Equipment was retro-fitted and in excellent condition.

**CITATION REVIEW:** CSHO reviewed case with BAO AD. Determination was made by BAO that citations relating to working under elevated lift and not realizing the ropes rated capacity were appropriate.

**CLOSING CONFERENCE:** Closing conference was conducted on 06/16/06. OSHA 300 was reviewed. Proposed violations and corrective actions were discussed.

Check Applicable Boxes and Explain Findings:

	Complaint Items
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	Referral Items
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<input checked="" type="checkbox"/>	Accident Investigation Summary & Findings
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<input type="checkbox"/>	LEP
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<input type="checkbox"/>	Planned Inspection
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**NATURE AND SCOPE – UNUSUAL CIRCUMSTANCES (Mark X and explain all that apply:)**

<input type="checkbox"/>	None
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<input type="checkbox"/>	Denial of entry (see denial memo)
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<input type="checkbox"/>	Delays in conducting the inspection
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<input type="checkbox"/>	Strikes
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<input type="checkbox"/>	Jurisdictional Issues
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<input type="checkbox"/>	Trade Secrets
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<input type="checkbox"/>	Other
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Comments: .

This was a federally funded project and a tribal reservation, with NDDOT oversight.

**RECORDKEEPING PROGRAMS**

(Other than 29 CFR 1904 requirements)

Does the employer have a recordkeeping program relating to any occupational health issues (monitoring, medical, training, respirator fit tests, ventilation measurements, etc.)?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Are any programs required by OSHA health standards?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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**COMPLIANCE PROGRAMS**

(engineering controls, PPE, regulated areas, emergency procedures, compliance plans, etc.)

Address any relevant compliance efforts regarding potential health hazards covered by the scope of the inspection.

**PERSONAL HYGIENE FACILITIES AND PRACTICES**

(showers, lockers, change rooms, etc.)

Are any required by OSHA health standards?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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What Standards:

**HAZARD COMMUNICATION PROGRAM**

Written Program (complete)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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MSDS's (all)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Labeling (adequate)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Training (complete)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Copy MSDS's/Program attached

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Comments:

**ACCESS TO EXPOSURE & MEDICAL RECORDS**

**FIRE PROTECTION AND EVACUATION PROCEDURES**

**SYSTEMS SAFETY AND EMERGENCY RESPONSE**

**RESPIRATOR PROGRAM**

**LOCKOUT TAGOUT/ ELECTRICAL SAFE WORKPRACTICES**

**FIRST AID:** First aid kits on site.

**ELECTRICAL SAFE WORKPRACTICES**

**EXPOSURE CONTROL PLAN**

**LABORATORY STANDARD**

**ERGONOMIC PROBLEMS**

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, complete the items 1 and 2 below.

- 1. Lifting (10% or more similarly exposed employees injured)
    - a. Total # of employees exposed to job:
    - b. Total # of cases for job:
  - 2. CTD's (10% or more similarly exposed employees have CTD's; 5% or more CTS cases)
    - a. Total # of employees exposed to job:
    - b. Total # of cases for job:
- Other significant injury/illness trends

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, explain.

### EVALUATION OF EMPLOYER'S OVERALL SAFETY AND HEALTH PROGRAM

General Industry:

<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Employer has a Safety & Health Program
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<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Written
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<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Copy Attached
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Construction Industry:

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Accident Prevention Program
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<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Written
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<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Copy Attached
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#### Evaluation of Safety and Health Program

(0=Nonexistent 1=Inadequate 2=Average 3=Above average)

<input type="checkbox"/>	Written S&H Program
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<input type="checkbox"/>	Communication to Employees
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<input type="checkbox"/>	Enforcement
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<input type="checkbox"/>	Safety Training Program
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<input type="checkbox"/>	Health Training Program
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<input type="checkbox"/>	Accident Investigation Performed
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<input type="checkbox"/>	Preventive Action Taken
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Comments:

#### CLOSING CONFERENCE NOTES:

Were any unusual circumstances encountered such as, but not limited to, abatement problems, expected contest and/or negative employer attitude? If yes, explain below.

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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19. Closing Conference Checklist ("x" as appropriate)

<input type="checkbox"/>	No Violations Observed
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<input checked="" type="checkbox"/>	Gave Copy Employer Rights
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<input checked="" type="checkbox"/>	Reviewed Hazards & Standards
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<input checked="" type="checkbox"/>	Discuss Employer Rights/Obligations
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<input checked="" type="checkbox"/>	Encouraged Informal Conference
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<input checked="" type="checkbox"/>	Offered Abatement Assistance
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<input checked="" type="checkbox"/>	Discussed Consultation Programs
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<input type="checkbox"/>	Employer/Employee Questionnaires
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**Closing Conference Held with Employee Representative**

<input checked="" type="checkbox"/>	Jointly	<input type="checkbox"/>	Separately
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