Form DNR 5611 Revised 12/15/2002 Division Form #57a

HAULER NO

## Compliance Notice

No 1399294820

Ohio Department of Natural Resources Divison of Oil and Gas Resources Management

Region Phone (740) 286-6411

THIS IS TO NOTIFIY YOU THAT AN INSPECTION WAS CONDUCTED BY THE ENFORCEMENT SECTION OF THE DIVISION OF OIL AND GAS RESOURCES MANAGEMENT, OHIO DEPARTMENT OF NATURAL RESOURCES, ON THE BELOW DATE, AND THE FOLLOWING VIOLATIONS WERE NOTED.

API Well No. 34-115-24685-00-00 Project: County: **MORGAN CENTER** Sec: WI Typ: OG Twp. Lot: Owner 8595 PDC ENERGY INC Resp Co WH\_LAT: 0.000000 WH\_LONG: Well Name: PALMER 0.000000 No.: Directions to site: Phone Contact: Inspection Type: Drill / Deepen / Reopen Address Inspection Purpose: Status Check Type of Notification Field Visit or Inspection Contact ANDREW THOMAS 1509: 22(A) 1501: 9-1-07 Drilling operation causing pollution and contamination Inspection requires action Requirements 1822: I arrived on site. The first person I spoke with was Mr. Don Kreager (contractor for PDC). He stated that he had discovered that the drilling mud had entered the creek bed. He was mobilizing a crew and equipment to create an earthen dam to collect what escaped the drilling pad. At that time Ohio EPA was notified. Company was drilling on fluid. Their total measured depth was 8617'. They were using 13.3 lb./gal. oil based drilling mud. The bottom hole assembly was 30 ft. off of the bottom. They were drilling a 7.875" hole. Existing casing is 100' of 30" conductor, 431' of 20" surface casing, 1972' of 13.375" intermediate casing and 5821' of 9.625" 2nd intermediate casing. After talking with Mr. Larry Howe (company man), they suspect that the problem is somewhere below the Blowout Preventer (BOP) on the well head. They did not have an accurate measure on the amount of gas pressure that was encountered. Because of the amount of gas pressure behind it, drilling mud was filling the cellar and blowing out at an approximate rate of 10 barrels per minute. Gas monitoring was in place all around the site and due to the high LEL levels everything was shut down to eliminate an ignition source and personnel were evacuated from the immediate area of the drilling rig. Eventually vac trucks were allowed on the pad to clean up where the oil based drilling mud was pooling so that no more would escape the pad. There is a berm around the whole pad, but most of the mud had collected in the northeast corner of the pad and in the catch basin below. Vac trucks were able to keep up with the flow of mud when they were down there. They had to shut down a few times due to the wind shifting the plume of gas around the pad. After it cleared they could resume operations. 1849: Mike Sherron (Ohio EPA Emergency Response) called me to get details and directions to the well site. 1934: I called Field Supervisor Dan Goins to update him on the situation. 1943: I walked down over the hill and inspected the creek and the containment dike. It was built 1000' from the drilling pad. At the time of inspection the fluid level was 3' below the top of it. There was also a siphon dam built into it and clear water was running out of it. Multiple absorbent booms had been placed upstream from it. Downstream from the dike, multiple booms were placed in the stream to catch any sheen (about every 15 feet). Secondary containment was also built close to where the stream crosses Babcock Rd. 2010:Wild well control arrived on site. They assess the situation and go down to look at the well. They could not see what was causing the leak below the BOP. After a long series of meetings and deliberations, they decide to wait until daylight so they can pump the cellar down and get a better look at things. The wind changed directions when the sun went down making it more difficult for the vac truck crew to keep ahead of the mud flow. All free fluid from the drilling pad or area around the pad must be containerized. Drilling mud can be treated and reused. All contaminated material coming from that must be hauled to an EPA approved landfill. Creekbed and off-pad contamination must be removed and hauled to an EPA approved landfill. Containment dikes should be left in place and monitored for contamination until further notice. Absorben pads and booms must be changed regularly until no more contamination is observed. OHIO REVISED CODE CHAPTER 1509. PROVIDES FOR ADDTIONAL NON-EXCLUSIVE REMEDIES WHICH THE **DIVISON MAY PURSUE.** Accompanied by Vac INJECTION/PRESSURE ☐ Vac FLOW/METER ANNULUS/PRESSURE:

LISCENSE\_NUM:

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API Well No.

Former Owners

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34-115-24685-00-00 Project: County: **MORGAN** Twp. **CENTER** Sec: 0 WI Typ: OG Lot: Owner 8595 PDC ENERGY INC Resp Co WH\_LAT: 0.000000 WH\_LONG: Well Name: PALMER No.: 0.000000 Directions to site: Contact: Phone Inspection Type: Drill / Deepen / Reopen Address Inspection Purpose: Status Check Inspection Date: 5/4/2014 Signature: Date Compliance Notice Issued: 5/4/2014 ANDREW THOMAS Required action to be completed by: 5/19/2014 Reviewed by: Extended action completed: Forward to: Required action completed: Section/Name **PDC ENERGY INC** Original Owner