pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

MECHANICAL INTEGRITY ASSESSMENT REPORT – FORM C INSTRUCTIONS

1. Well Operator/Owner

Enter the Oil and Gas Operator (OGO) number for the well operator/owner who operates the well.

2. Abridged API No.

Enter the abridged API number assigned to the well using the following format: CCC-XXXXX. CCC represents the three-digit county code and XXXXX represents the unique, 5-digit county ID.

3. Date

Enter the date the inspection was completed at the well using the following format: MM/DD/YY. Inspection dates are only required for unconventional well sites. For conventional well sites, the inspection results provided should be those collected nearest to the time when the report was submitted.

4. Wellhead Pressure/Flow

4.a. Primary Production Pressure - Report the casing pressure (flowing or shut-in) inside the production casing in pounds per square inch gauge (psig), if a gauge is available to measure this value. All wells drilled after February 5, 2011 should be equipped with such a gauge. Leave blank if no gauge is available. Enter zero (0) if field is produced on a vacuum system.

4.b. Primary Production Vent Flow - Vent Flow Rate for wells with engineered vents applies for oil wells producing inside of surface or coal casing that vent associated gas to comply with section 78.83(a)(1) or multi-string oil or combination wells that vent production casing gas: Report the flow rate in cubic feet per day (cfpd) or indicate "NRM" (not readily measurable) as applicable.

4.c. Annular Production Pressure - Report the casing pressure (flowing or shut-in) inside the produced annulus (i.e., annulus plumbed to sales line or used for other onsite applications), in psig, if a gauge is available to measure this value. All wells drilled after February 5, 2011 should be equipped with such a gauge. Leave blank if no gauge is available. Enter zero (0) if the field is produced on a vacuum system.

4.d. Maximum Allowable Pressure Exceeded per 78.73(c) - If gas is produced (i.e., plumbed to a sales line or used for other on-site applications), through coal casing or surface casing indicate "Y" if measured pressure in 4.a. or 4.b. is in excess of 80 percent x 0.433 psi/ft. x casing set depth in feet, "N" if it is below threshold pressure, or U if it is unknown if the pressure threshold is exceeded. Leave blank if no gas is produced inside of coal or surface casing. <u>If the maximum allowable pressure is exceeded, it is necessary to report this observation to the appropriate district oil and gas inspector supervisor within 24 hours of identifying the potential problem.</u>

5. Water Level or Other - mud scale weight, average daily pumping time/volume, or water quality measurement may serve as substitutes for water level.

5.a. Water Level or Other Measurement - For oil or combination wells producing oil inside of surface or coal casing, report the water level in feet below ground surface, mud scale weight of produced fluid in pounds per gallon (ppg), average daily pumping time in hours per day, average daily pumping volume in barrels (bbls) per day, or a water quality measurement of the produced fluid in milligrams per liter Total Dissolved Solids (mg/L TDS), mg/L Total Chlorides (mg/L Cl) or microsiemens per centimeter (µS/cm).

5.b. Water Level or Other Unit - Record unit of measurement for value provided in 5.a. If no produced water, indicate NPW.

6. Open Flow (cfpd) or Shut-in Pressure on Production Annulus (psig)

6.a. Open Flow or Shut-in Measurement - Report the vent flow rate in the production annulus in cfpd, if open and venting; or the pressure in psig, if shut in. If no flow or pressure, enter zero (0). If gas is present, but cannot be quantified, enter "NRM." If the production annulus is inaccessible (i.e., subgrade or obstructed by surface configuration) enter "I."

6.b. Open Flow or Shut-in Pressure Unit - Record unit of measurement for value provided in 6.a.

7. Fluids Survey (Gas, Oil, or Brine)

7.a. Enter "N" if no fluids (gas, oil, or brine) are observed during inspection. Proceed to column 8. If fluids are observed, enter "Y", and complete 7.b. through 7.e., as applicable.

7.b. If gas is observed outside of any freshwater casing string (coal, surface, or conductor casing), enter the measured or estimated flow rate in cfpd; or if it cannot be quantified, enter "NRM." If no gas is present, enter zero (0). If the freshwater casing annulus is inaccessible (i.e., subgrade or obstructed by surface configuration) enter "I."

7.c. If gas is observed outside of the intermediate casing string, enter the measured or estimated flow rate in cfpd; or if it cannot be quantified, enter "NRM." If no gas is present, enter zero (0). If the intermediate casing annulus is inaccessible (i.e., subgrade or obstructed by surface configuration) enter "I."

7.d. If gas is observed in association with any wellhead equipment critical for providing well control, allowing a safe working environment at the well, or preventing environmental impacts; enter the measured or estimated flow rate in cfpd; or if it cannot be quantified, enter "NRM." If no gas is present, enter zero (0).

7.e. Enter "Y" if any liquids (oil or brine) are flowing to the ground surface or outside of any freshwater casing string (coal, surface, or conductor casing), otherwise enter "N."

8. Corrosion Problems (Y/N)

Severe corrosion problems that will lead to an imminent environmental release if not addressed should be reported. Surface equipment designed to contain pressure and/or fluids should be focused on as part of this inspection.

Enter "Y" if any severe corrosion problems are noted that, unless repaired, will result in the imminent failure of well components intended to contain pressure or produced fluids, otherwise enter "N." There is no expectation for operators/owners to address minor surface corrosion as part of this inspection, as the presence of some surface oxidation is actually beneficial to the integrity of operating wells. <u>If severe corrosion is noted, it is necessary to report this observation to the appropriate district oil and gas inspector supervisor within 24 hours of identifying the potential problem.</u>

9. Comments

Comments should be used to note any significant observations during the inspection. Qualifying any observations that might appear out of the ordinary to Department staff reviewing data submissions, indicating if annular spaces are plumbed to tanks or not accessible, or providing well construction modifications or design clarifications are some examples.

ANY FIELDS THAT ARE NOT APPLICABLE FOR A PARTICULAR WELL DESIGN SHOULD BE LEFT BLANK.

ALL OPERATING WELLS AND THOSE WELLS THAT ARE CLASSIFIED AS ABANDONED BUT HAVE NOT YET BEEN PLUGGED MUST BE INSPECTED ON A QUARTERLY BASIS AND RECORDS RETAINED FOR FIVE YEARS IN ACCORDANCE WITH THE REGULATIONS OF 25 PA. CODE CHAPTER 78, SECTION 78.88(a). PLEASE NOTE THAT ONLY ONE QUARTERLY INSPECTION RESULT MUST BE REPORTED ANNUALLY FOR CONVENTIONAL WELL SITES, WHEREAS ALL FOUR QUARTELY INSPECTION RESULTS MUST BE REPORTED ANNUALLY FOR UNCONVENTIONAL WELL SITES TO DEMONSTRATE COMPLIANCE WITH 25 PA. CODE CHAPTER 78, SECTION 78.88(e).

IT IS POSSIBLE THAT THE WELL INSPECTION WILL REVEAL OTHER POTENTIAL PROBLEMS RELATED TO ENVIRONMENTAL PROTECTION OR HEALTH AND SAFETY. OPERATORS SHOULD FOLLOW ALL EXISTING POLICES, LAWS, AND REGULATIONS WITH REGARD TO REPORTING THESE OTHER PROBLEMS TO THE DEPARTMENT.