



(Part B-5 continued)

c. Surface waters, floodplains, wetlands, natural rivers, critical dune areas, threatened or endangered species within 1320' and Great Lake shorelines within 1500' of the well site

d. Describe the actions to be taken to mitigate impacts to any of the items identified in Part B-5 a-c above.

**6. Identify the source of fresh water used for drilling and completing this well**

- "Permanent" water well, to be retained after final completion OR used for drinking water (shall be drilled and installed pursuant to Part 127 of 1979 PA 368, as amended)
- "Temporary" water well, will be plugged upon final completion and not used for drinking water (consult R 324.403 (2) for minimum construction requirements)
- Fresh water will be hauled from existing water well or municipal source (identify) \_\_\_\_\_
- No fresh water will be used in drilling this well

**7. Method of Well Completion and Well Treatment** (check all that may apply)

- Perforated casing  Open Hole
- Acidizing  Hydraulic Fracturing. Est Total HF Fluid Vol. (If Gas, give Liquid Phase Vol) \_\_\_\_\_ gallons
- Yes  No Is High Volume Hydraulic Fracturing expected to be utilized in completion of this well? (HF fluid vol. >100,000 gal). If yes, submit Chemical Pre-Disclosure & HVHF EIA forms (EQP 7200-26, EQP 7200-24)
- Other (describe) \_\_\_\_\_

**8. Pit location and handling and disposal of drill cuttings, muds and fluids**

- Anticipated depth to groundwater \_\_\_\_\_ Method determined by \_\_\_\_\_
- On site in-ground pit, anticipated dimensions: L \_\_\_\_\_ W \_\_\_\_\_ D \_\_\_\_\_
  - Remote in-ground pit, anticipated dimensions: L \_\_\_\_\_ W \_\_\_\_\_ D \_\_\_\_\_  
Attach approval of landowner and attach survey of remote pit location
  - Well drilled below base of Detroit River Anhydrite. Describe how mud and cuttings pursuant to R324.407(7)(iv) will be handled.  
Pit fluids below DRA disposed by \_\_\_\_\_ licensed liquid waste hauler **OR**  
Pit fluids below DRA disposed at the \_\_\_\_\_ disposal well.  
If drill cuttings & mud don't pass paint filter test, they will be disposed at \_\_\_\_\_ landfill.  
 No salt cuttings **OR**  
 Salt cuttings dissolved and disposed by \_\_\_\_\_ licensed liquid waste hauler **OR**  
 Salt cuttings hauled to \_\_\_\_\_ landfill
  - Temporary pit, cuttings and muds disposed at (identify) \_\_\_\_\_
  - No in-ground pit, cuttings and muds disposed at (identify) \_\_\_\_\_
  - Pit will be solidified

**C. IMPACTS AS A RESULT OF PRODUCTION**

- 1. Kind of well**  exploratory  development  Other (describe) \_\_\_\_\_
- Antrim project (submit separate project EIA, form EQP 7200-21, for access roads, flow lines, and surface facilities) where is project EIA found? \_\_\_\_\_ and complete C-2, omit C-3 and C-4

- 2. Location of surface facilities (Prior to construction, the District Geologist, pursuant to R324.1002, must also approve all surface facility secondary containment plans.)**
- Greater than 300' from wellhead. Identify facility location on attached plat and complete C-3 and C-4.
  - Less than 300' from wellhead. Identify facility location on attached plat, complete C-3, omit C-4
  - Surface facility exists or was previously approved for construction and is known as \_\_\_\_\_ complete C-3, omit C-4.
- Surface facility location was not determined for this **exploratory** well (omit C-3 and C-4). Submit a separate request for **Surface Facility Location Approval (form 7200-22)**, which includes a Facility Plan, Environmental Impact Assessment, and Soil Erosion and Sedimentation Control Plan, to District Geologist prior to construction pursuant to R324.504.

- 3. Flow Line Environmental Impact Assessment**
- Identify flow line location and course from well to the surface facility on attached plat.  
Flow line route dimensions \_\_\_\_\_ feet x \_\_\_\_\_ feet / 43,560 = \_\_\_\_\_ acres.  
Describe the topography, drainage, soil type(s), direction and percentage of slopes, land cover and present land use along the flow line route

- 4. Surface Facility Environmental Impact Assessment**
- a. Dimensions of surface facility \_\_\_\_\_ feet x \_\_\_\_\_ feet / 43,560 = \_\_\_\_\_ acres.
- b. Describe the topography, drainage, soil type(s), direction and percentage of slopes, land cover, and present land use
1. Along access route to surface facility

Part C-4, continued

2. At surface facility site

c. Are surface facilities likely to receive oil or gas with H<sub>2</sub>S concentration greater than 300 ppm?  Yes  No, if yes, R324.1106(2) applies.

d. Will surface facilities be located in residentially zoned area?  Yes  No, If yes, R324.506 may apply

e. Identify the distance and direction to all of the following, and identify on attached plat

1. Distance and direction to all buildings, fresh water wells, public roads, power lines and other man-made features within 600' of surface facility

2. Distance and direction to any surface waters, floodplains, wetlands, natural rivers, critical dune areas, and threatened or endangered species within 1320' and Great Lakes shorelines within 1500' of the surface facility site

3. Describe the actions to be taken to mitigate impacts to any of the items identified in Part C-4e 1 and 2 above.

4. Distance and direction to all Type I and Type IIa public water supply wells within 2000' of the surface facility site and all Type IIb and Type III wells within 800' of the surface facility

Type I is a community water supply with year-round service ≥ 15 living units or ≥ 25 residents. Type II is a non-community water supply with ≥ 15 service connections or ≥ 25 individuals for not less than 60 days per year. Average daily water production: IIA ≥ 20,000 GPD IIB <20,000 GPD Type III is a public water supply which is neither type I or II.

**5. Method of brine disposal**

- Dedicated flow line to disposal well \_\_\_\_\_, permit number \_\_\_\_\_
- Transported by tanker.  Other \_\_\_\_\_

**6. Method of transporting hydrocarbons past the point of sale**

- Oil sold through transmission line  Gas sold through transmission line
- Oil transported by tanker for sale  Gas flared on site (production restrictions may apply)
- Other \_\_\_\_\_

**D. MITIGATION OF IMPACTS FROM DRILLING AND/OR PRODUCTION**

Describe additional measures to be taken to protect environmental and/or land use values

**E. ADDITIONAL PERMITS**

Identify additional permits to be sought

**F. SOIL EROSION AND SEDIMENTATION PLAN**

Submit a soil erosion and sedimentation plan (form 7200-18) which addresses **each** well site, surface facility, and flow line route identified in this application. (Refer to requirements under Part 91, 1994 PA 451)

**G. ALTERNATE WELL AND SURFACE FACILITY LOCATIONS**

Were alternate surface locations considered for this well or surface facility?

- No, alternate sites did not seem necessary or more desirable
- Yes, the following locations were considered

Why were they rejected in favor of the proposed location?

**H. CERTIFICATION**

"I state that I am authorized by said applicant to prepare this document. It was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge."

\_\_\_\_\_  
Name and title (printed or typed)

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date