VERMONT
ENVIRONMENTAL CONSERVATION

FORM

Drinking Water and Groundwater Protection Division

OBSERVATION WELL OR SPRING ID SHEET

For DWGWPD use only

Interference Project (I.P.) Number:_____ USGS Map Number:_____

Project Number:_____ Public Well (Y/N):_____ WSID (well#):_____

A) General Information for Production Well

1. Town: _____
2. System name or owner: _____
3. Consultant(s):_____
4. Consultant's Production well ID from report: _____

B) Observation Well or Spring Information

1. Consultant's Observation Well or Spring ID from report: _____

   (owner) _____ (date) _____

   IP/map no._____/_____

2. Driller: _____
3. Driller License Number: _____
4. Date drilled: _____
5. Source type: _____
6. Source depth: _____ (ft BTOC)
7. Grout type: _____

OBSERVATION WELL OR SPRING YIELD DETERMINATION

8. Driller's yield (DY):_____ (gpm) Or Spring yield (SY):_____ (gpm)
9. Available Well yield: DY/2 = _____ (gpm) Or Available Spring yield : SY/4 = _____ (gpm)

   Driller blow test (> 2 hour): _____ (duration) _____ (gpm) Or Pump rating:_____(gpm)

   Or Approved or Permitted yield: _____ (gpm)

10. Basis for Approved or Permitted yield:

DWGWPD Permit WSID number: _____ Date: _____ Or

Vermont Department of Health approval WSID number: _____ Date: _____ Or

DWGWPD WW Permit number: _____ Date: _____ Or

Other_____ **YIELD FROM ABOVE USED IN CALCULATION BELOW:** _____ (gpm)

OBSERVATION WELL OR SPRING ID SHEET (Continued)

TOTAL AVAILABLE HEAD DETERMINATION

11. Driller's Lowest Water Bearing Fracture: _____ (ft BTOC)

12. Pump depth or spring outlet: _____ (ft BTOC)

13. Screen section: _____ to _____ (ft)

14. Other hydraulic base: _____ (ft) Description: _____

15. Static level: _____ (ft BTOC) date: _____

16. Total available head (TAH): _____ (ft)

17. Method of determination of TAH: line (circle one) 11 / 12 / 13 / 14 minus line 15

18. Top of Well casing or spring tile elevation: _____ (in feet above mean sea level)

C) Interference Monitoring

19. Observation well/spring status during test: (check one) primary source_____ / backup_____ /unused_____

20. Average Daily Demand: _____ (gpm)

21. Maximum Daily Demand: _____ (gpm) Peaking Factor used if other than 2: _____

22. Method of determination of Average Daily Demand: _____

23. Transmissivity value, T: _____ (sq ft/d); Storativity value, S:_____

24. Loss of TAH from interference at design demand: _____ (ft) _____ (%)

25. Remaining TAH: _____ (ft) (subtract values on line 24 from line 16)

26. Remaining storage: _____ (gal)

27. Loss of yield from interference at design demand: _____ (gpm) _____ (%)

28. Remaining yield: _____ (gpm)

29. Method of calculation of TAH loss: _____

30. Boundary (circle one): + / - / none; at _____ min. /ft.

WELL ID SHEET FOR OBSERVATION WELL OR SPRING

Form Completion Instructions

The Drinking Water and Groundwater Protection (DWGWPD) will assign a unique IP number to each approved production well, identify the USGS topographic map number associated with the project, and the project file number and WSID number as applicable. The applicant must complete the following:

A) General Information for Production Well

1. Town where the project is located.
2. Water system name or well owner.
3. Name of consulting hydrogeologist.
4 Consultant's well number and title of the pump test report.

B) Observation Well or Spring Information

1. Observation Well or Spring ID; name of system/owner of the well or spring that was observed; date of pump test.
2. Name of drilling company.
3. Driller's license number.
4. Date(s) that well was drilled or spring constructed.
5. Source type = well point, dug well, gravel well, bedrock well or spring (non-pumped).
6. Total depth of well or spring below top of casing (BTOC).
7. Type of grout used (or none).
8. Driller's estimated yield or spring yield.
9. Pick and fill in one of the fields based on source type and most accurate information.
10. If an approved, permitted or other yield is known fill in appropriate field and date of that determination. Fill in field from 9 above.
11. Depth BTOC of driller's lowest major water bearing fracture.
12. Depth BTOC to pump intake or spring outlet pipe.
13. Depth BTOC to top and bottom of well screen.
14. Hydraulic base used if other than well depth, lowest water bearing fracture, or pump setting. Describe method of determination.
15. Static level BTOC before pumping testing and date of measurement.
16. Calculated total available head (TAH)
17. Indicate line number by circling one (11/12/13/14) of data used to determine TAH in line 16.
18. Elevation of top of casing or spring tile above mean sea level. Elevation may be estimated from topographic map.

(C) Interference Monitoring

19. Indicate status of observation well or spring as a primary, backup, or unused source.
20. Average daily demand on well or spring. Demand can be estimated using 150 gpd per bedroom for a residential unit.
21. Maximum day demand = average daily demand x peaking factor. Peaking factor = 2 unless actual metered use data are available.
22. Show method used to calculate Average Daily Demand (i.e. number of bedrooms times appropriate flow).
23. Calculate transmissivity and storativity from pumping test data, if available.
24. Loss in total available head in feet and as a percent of the original TAH based on design conditions as follows:
    3-day peak: 180 day continuous average day demand pumping rate + 3 days at max day pumping rate, **or**
    7-day peak: 180 day continuous average day demand pumping rate + 7 days at max day pumping rate.

    Note: 7-day max demand design conditions are applied to developments constructed for the purpose of accessing recreational and resort areas. 3-day max demand design conditions are applied to all other developments. Peaking duration is evaluated on a case by case basis by the DWGWPD.

25. Remaining TAH based on interference loss of TAH at design conditions.
26. Remaining available storage in well casing at design loss of TAH.
27. Calculated loss of yield in gpm and as a percent of original yield based on interference at design conditions.
28. Remaining yield based on interference at design conditions.
29. Show method of calculation of TAH loss.
30. Identify any boundary conditions pumping test data, if available.