

**VIRGINIA DEPARTMENT OF HEALTH
ENGINEERING DESCRIPTION SHEET
WATER**

DATE: April 30, 2003

CERTIFIED CLASS: IV

TYPE: Community

WATERWORKS NAME: Lands End

COUNTY/CITY: Franklin County

LOCATION: From Union Hall, go North approximately five miles on State Route 945, then turn right on State Route 663. Water system is at the intersection of State Route 663 and State Route 957.

OWNER: Petrus Environmental Services, Inc.
P.O. Box 21173
Roanoke, Virginia 24018
(540) 344-9800

OPERATOR: Class IV Certified Operator Required

PERMIT NUMBER: 5067415

DATE OF ISSUE: April 30, 2003

TYPE OF TREATMENT: Iron and Manganese removal treatment

SOURCE: Two drilled wells

DESIGN CAPACITY: 38,400 gpd or 96 ERCs

This waterworks consists of two drilled wells, greensand filtration, atmospheric-type storage and distribution system.

Well A: This well is located about 120 feet west of the intersection of Routes 957 and 663. The well is a Class IIB well, drilled to a depth of 305 feet, cased with 6-inch diameter galvanized steel to a depth of 55 feet and grouted to a depth of 55 feet. The depth to bedrock is 55 feet. The well was completed August 09, 2001 and pump tested for 48 hours on August 14 to 15, 2001 with a yield of 30 gpm at a drawdown depth of 88 feet. The water level depth after a 2-hour recovery period was 44 feet. The casing extends 12 inches above a concrete slab and is equipped with a pitless adapter, well cap and vent. The well is equipped with a 5-HP submersible pump having a capacity of 30 gpm at a TDH of 387 feet. Appurtenances to the 2-inch discharge line includes a blowoff, check valve, gate valve, water meter, sample tap, ball valve and pressure gauge. Operation of the well pump is controlled by a pressure transducer located in the storage tank's drain line.

Well B: This well is located about 200 feet southwest of the intersection of Routes 957 and 663. The well is a Class IIB well, drilled to a depth of 305 feet, cased with 6 inch diameter galvanized steel to a depth of 75 feet and grouted to a depth of 75 feet. The depth to bedrock is 75 feet. The well was completed August 10, 2001 and pump tested for 48 hours on August 14 to 15, 2001 with a yield of 21 gpm at a drawdown depth of 170 feet. The water level depth after a 2-hour recovery period was 122 feet. The casing extends 12 inches above a concrete slab and is equipped with a pitless adapter, well cap and vent. The well will be equipped with a 2 HP submersible pump having a capacity of 21 gpm at a TDH of 288 feet. Appurtenances to the 2-inch discharge line includes a blowoff, check valve, gate valve, water meter, sample tap, ball valve and pressure gauge. A pressure transducer located in the storage tank's drain line controls operation of the well pump.