



UTAH DEPARTMENT of ENVIRONMENTAL QUALITY DRINKING WATER Water System Facilities Sanitary Surveys-2018 Part 1

Sources / Wells

- Sanitary Seal
- Well casing vent (if)
 - Down turned & screened #14
- Well Casing 18" above the ground , 12" above floor
- Means to measure draw down









Lineshaft Turbine

Submersible Turbine



Good sanitary seal

082

A-H

SINGE

12" above floor



Well Casing Air Vent? Height? Protected from flooding?





What is wrong here

Sources / Wells

- Discharge equipment
 - 5 components
 - Shut off valve, Check valve, Sampling tap
 - Pressure gauge, Meter
- Correct lubricants
 - Food grade oil/lube





The Five Components

Sample Tap

10

.

Check valve

H

Pressure Gauge

Meter

Shut Off valve

Food grade Mineral Oil

GST

Turbine Oil GST ISO 32

CONTRACT OF REAL

Chevron

Sources/Wells

- Air vac/relief valves or pump to tank
 - Down turned & screened #14

Air & Vacuum Relief

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Sources / Wells

• Drainage of building

 Building secured – locked

Air Gaps 2 x Pipe Dia.

What the Problem?

Security

Pump to Waste Lines

- Discharge through an approved air gap
- Equipped with a #4 non-corrodible mesh screen
- Does it discharge to a sanitary /Storm line without proper local authorization

























Security









Sources/Springs





DEVELOPED SPRING





Sources Springs

- Air vents
 - Down turned & screened #14
 - #4 support screen (4in plus)
- Access manhole
 - Shoe box lid, Gasketed & locked
 - 4" above cement , 18" above ground



Shoe Box Lid Good gasket & Locked

Hiller



18 " Above Ground

Air Vents Jown turned & Screened

4" Above Cement



















No Air Vents? Check for gasket being sucked in.

Sources Springs

- Water ponding
- Impervious soil cover or liner
- Fencing of collection area









10 feet of cover. Impervious Soil Cover?

10 feet of Impervious soil? Liner?

Everything is wrong on this spring !

Rubbermaid Spring Box

27

Impervious Soil cover? Or Liner

What are the regulations on liners?

Stock Proof Fencing



ARE BEAN

MARCH BALL

A Balla





Sources Springs

- Deep rooted vegetation
- Roots in collection pipes
























Spring – Overflow & Drain

- Overflow and drain outlet
 - Screened #4 mesh
 - Adequate free fall
 - Minimum 12 inches

















Sources Spring

- Condition of collection box (50 point item)
- Diversion channel





Lockable

4" above cement

Shoe box lid

18" above ground

Diversion Channel

Unsealed Openings

Condition of Box

Why a Diversion Channel?







Sources/Springs

- Meter
 - Weirs inside spring boxes w/ depth
 - Calculated/recorded in office?





Weir/Spring Box depth



