

Hydrogeologic Conditions in the Boise Front Geothermal Aquifer
Appendix H: Measuring Point Locations for Geothermal Monitoring Wells

NOTE: All measurements are based on the NGVD88 datum. To obtain elevations based on the NGVD29 datum, subtract 3.14 ft from the indicated value.

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**Idaho Water Resources Research Institute
Research Report IWRRRI-2003-05**

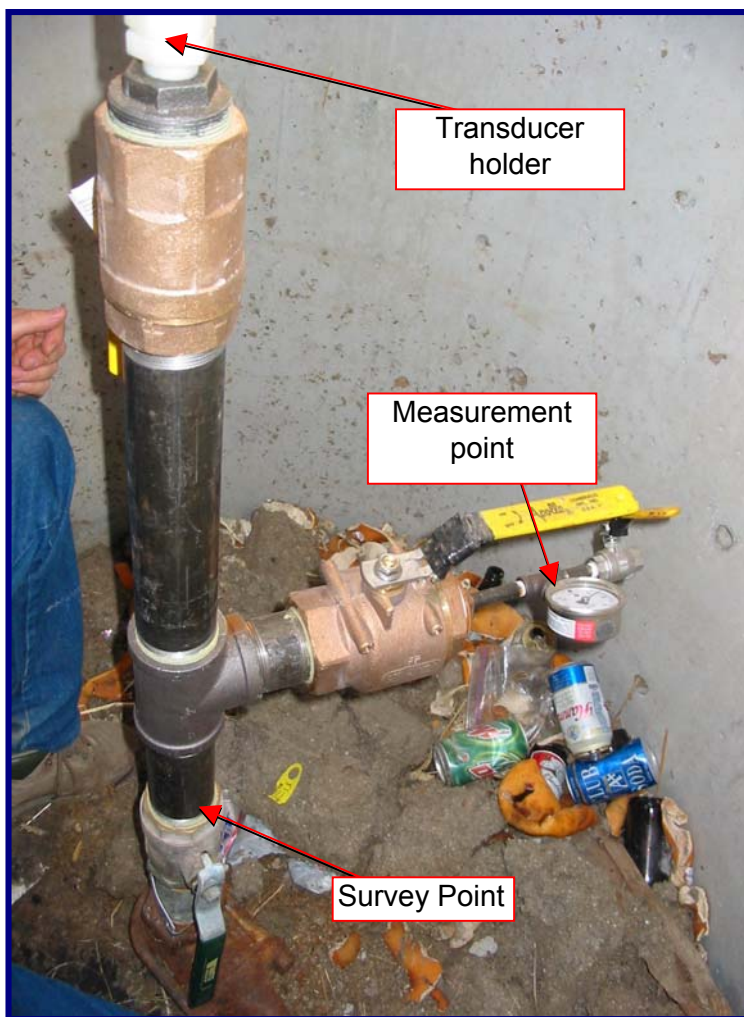
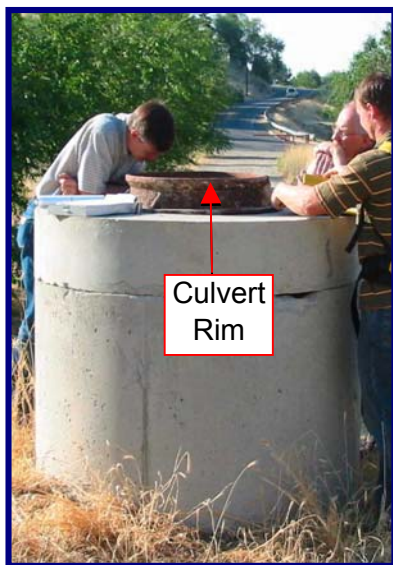
BGL#1

Geothermal ID: 1664
Ground Surface Elevation (ft): 2753.43
Survey Point Elevation (ft): 2754.61
Measuring Point Elevation (ft): 2755.23

Top of ball valve mounted vertically on well

Measurement Method: 30 psi pressure gauge

Comments: Measurement point is 0.62 ft above survey point (ball valve). Lip of Culvert rim is 4.25 feet above survey point. Transducer mount is 0.30 feet above measurement point. Ground surface elevation is approximately 1.8 feet below measuring point.



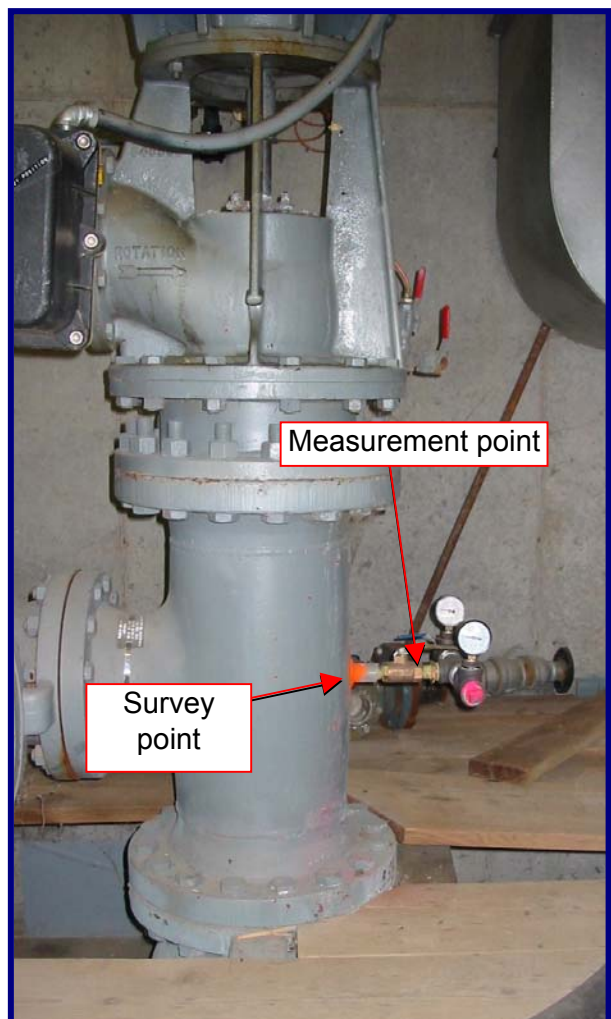
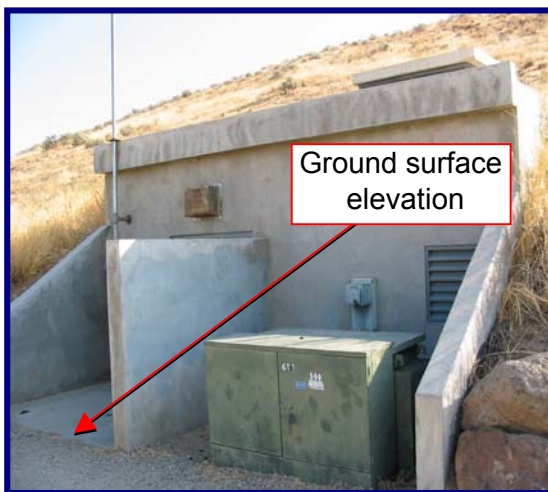
BGL#2

Geothermal ID: 1666
Ground Surface Elevation (ft): 2751.62
Survey Point Elevation (ft): 2752.91
Measuring Point Elevation (ft): 2752.91

Chisel mark in slab 4 ft south of entrance door
Tee fitting on southerly side of pump
Gauges

Measurement Method: 30 psi pressure gauge

Comments:

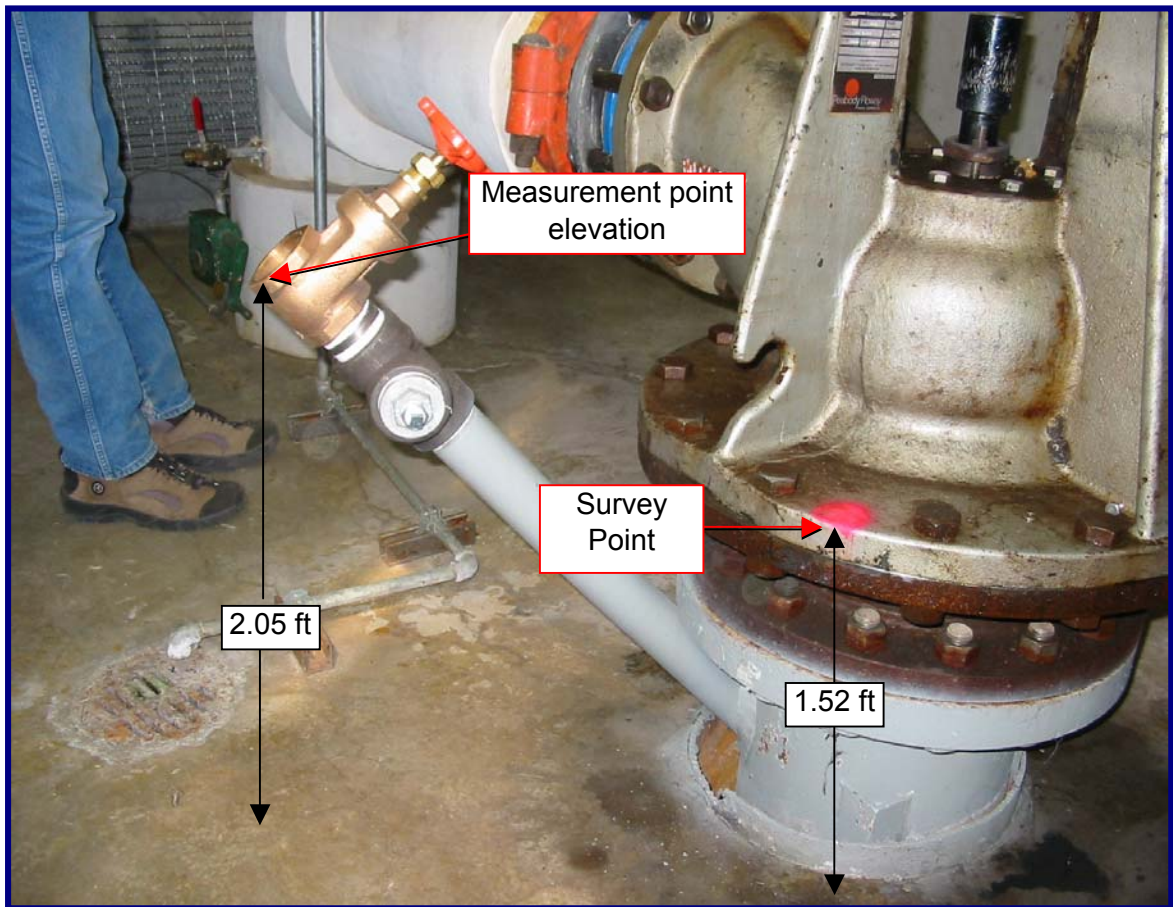


BGL#3

Geothermal ID:	1667	
Ground Surface Elevation (ft):	2773.68	Chisel mark on concrete slab outside entrance
Survey Point Elevation (ft):	2772.31	Top of flange on pump
Measuring Point Elevation (ft):	2772.84	

Measurement Method: steel tape or electric probe

Comments:

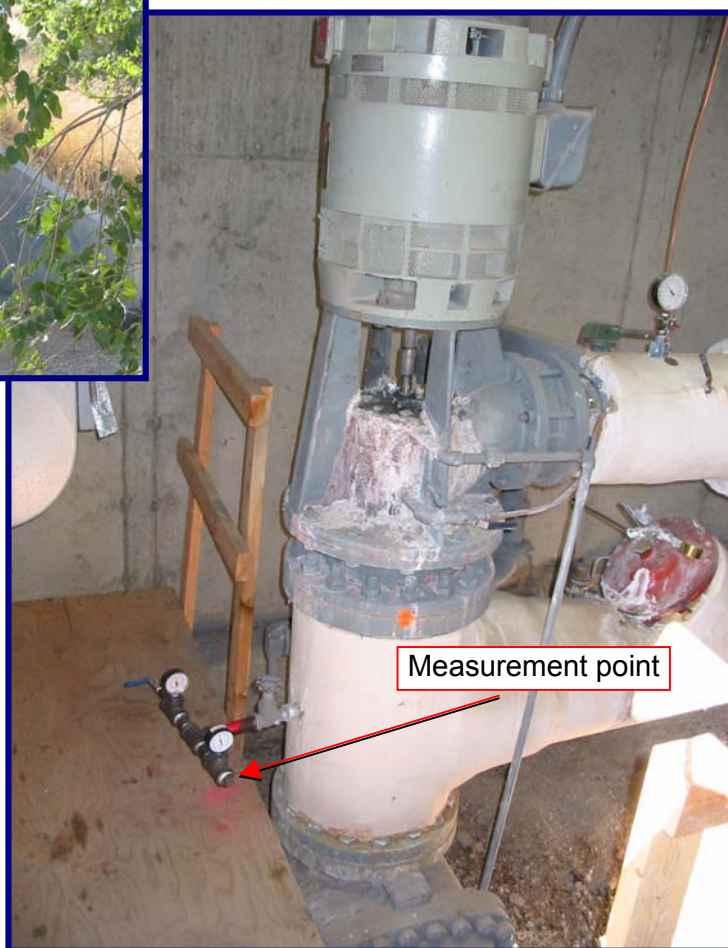


BGL#4

Geothermal ID:	1665	
Ground Surface Elevation (ft):	2753.09	Aluminum cap in concrete pad at entrance
Survey Point Elevation (ft):	2753.17	Pipe nipple on south side of pump
Measuring Point Elevation (ft):	2753.17	Pipe nipple on south side of pump

Measurement Method: 30 psi gauges

Comments:

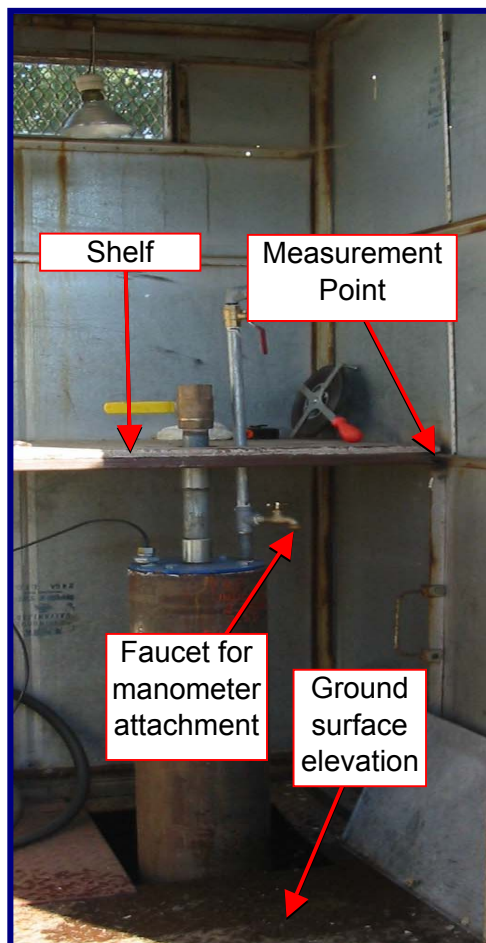


BLM

Geothermal ID: 1668
Ground Surface Elevation (ft): 2746.02
Survey Point Elevation (ft): 2748.36 top of well casing shelf
Measuring Point Elevation (ft): 2749.69 shelf

Measurement Method: Manometer or sight tube

Comments: Shelf is 3.67 ft above ground surface. Casing is 2.34 ft above ground surface

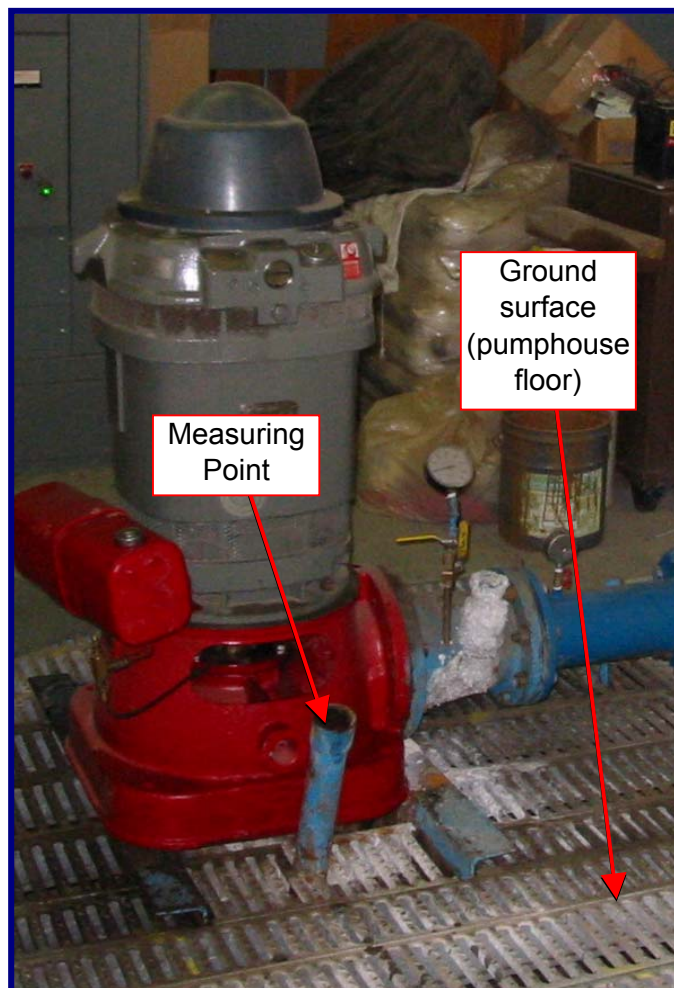


BWSHD-East

Geothermal ID: 1652
Ground Surface Elevation (ft): 2767.88 pumphouse floor
Measuring Point Elevation (ft): 2768.96 1.08 ft above pumphouse floor

Measurement Method: steel tape or electric probe

Comments:

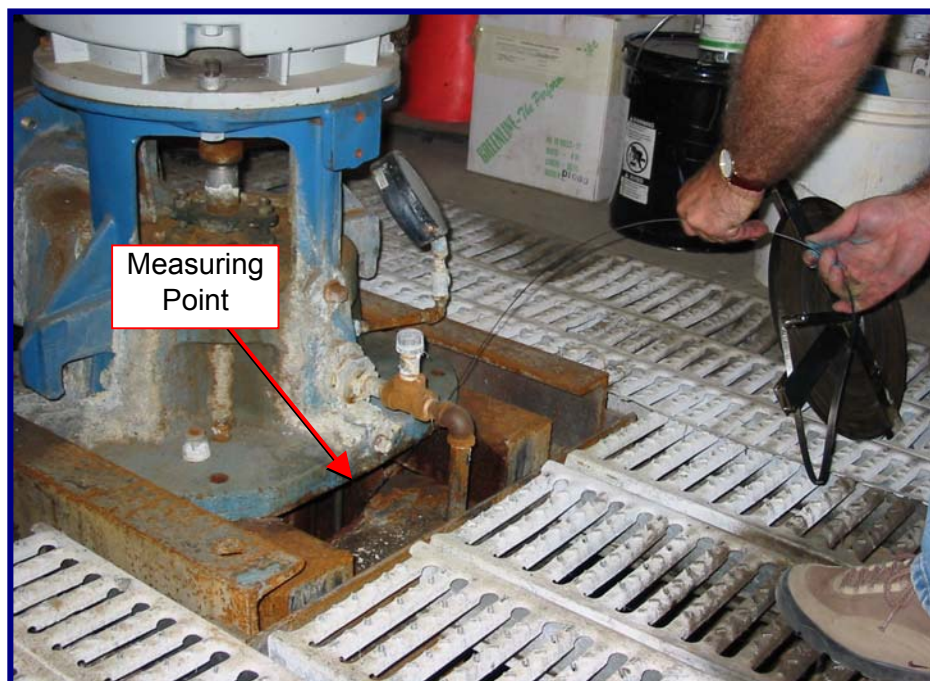


BWSHD-West

Geothermal ID:	1653	
Ground Surface Elevation (ft):	2767.88	Pumphouse floor
Measuring Point Elevation (ft):	2767.88	Bottom surface of blue pump base (ground surfa

Measurement Method: Steel tape or electric probe

Comments:

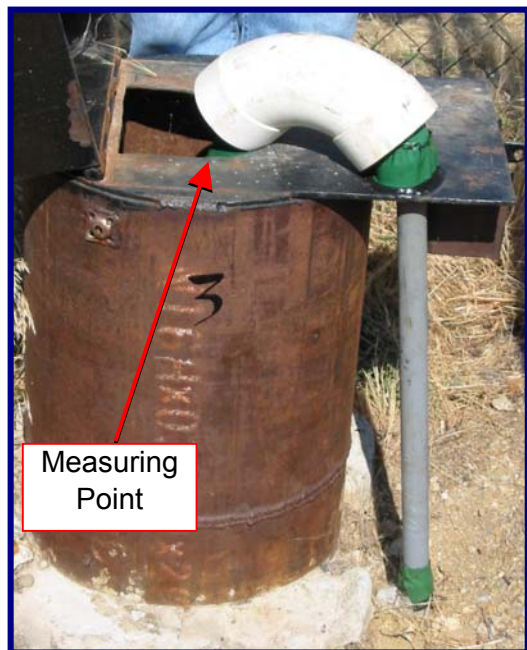
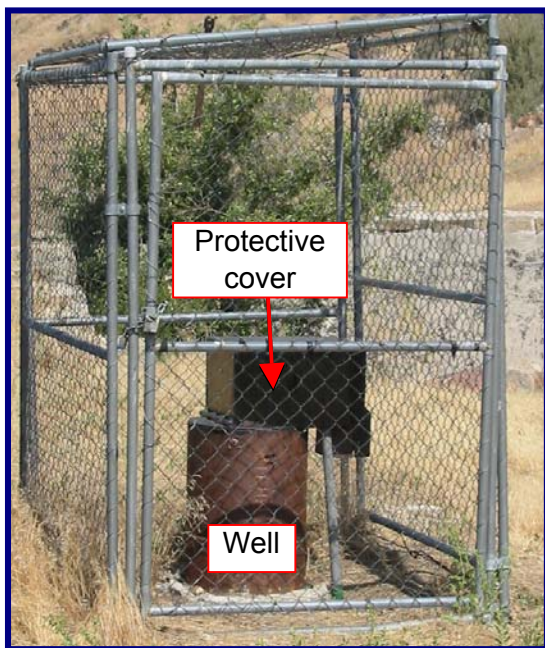


BWSHD#3

Geothermal ID:	3322	
Ground Surface Elevation (ft):	2789.63	Top-of-casing 2.75 feet above ground surface
Survey Point Elevation (ft):	2792.38	Top of the well casing
Measuring Point Elevation (ft):	2792.38	Top of the well casing

Measurement Method: Steel tape or electrical probe

Comments:

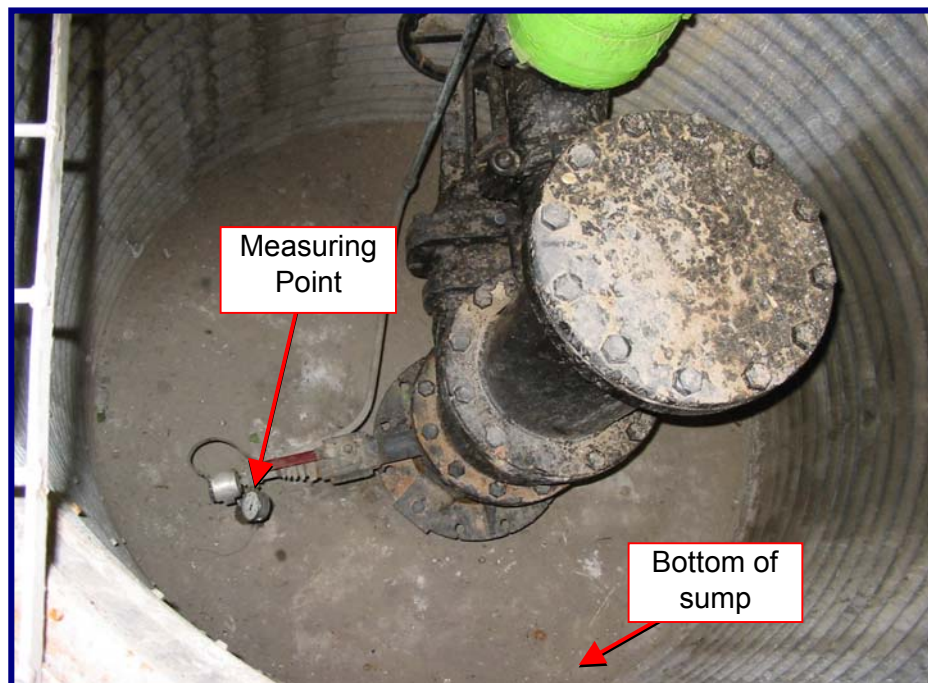


Capitol Mall #1 (Injection Well)

Geothermal ID:	1663	
Ground Surface Elevation (ft):	2721.87	Building floor
Bottom of sump elevation (ft):	2715.28	
Measuring Point Elevation (ft):	2717.03	guage/transducer elevation

Measurement Method: 30 psi gauges

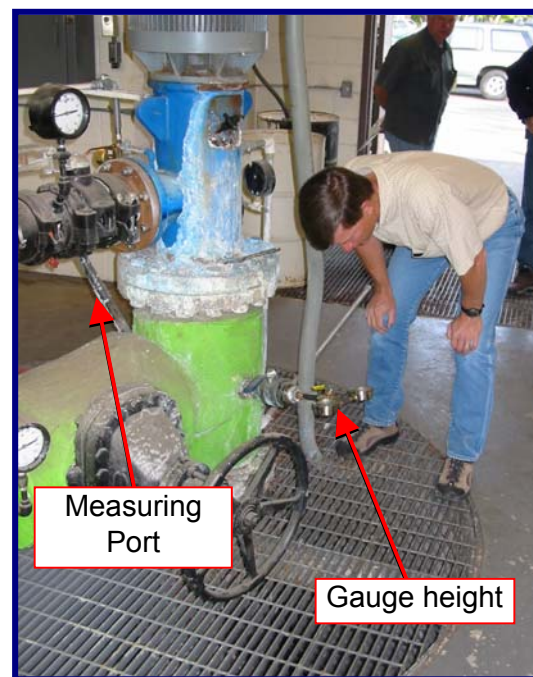
Comments:



Capitol Mall #2 (Production)

Geothermal ID:	1669	
Ground Surface Elevation (ft):	2714.78	Pump house floor
Inside bottom 2.5" ball valve:	2716.19	
Inside bottom 1.25" ball valve:	2717.78	
Measuring Point Elevation (ft):	2716.46	Gauge height
Measuring Point Elevation (ft):	2717.71	Measuring tube height
Measurement Method:	30 psi pressure gauges (if under pressure) or steel tape or electric probe (if water level below measuring port)	

Comments: Gauge height is 1.6 ft above floor



Boise City Injection Well

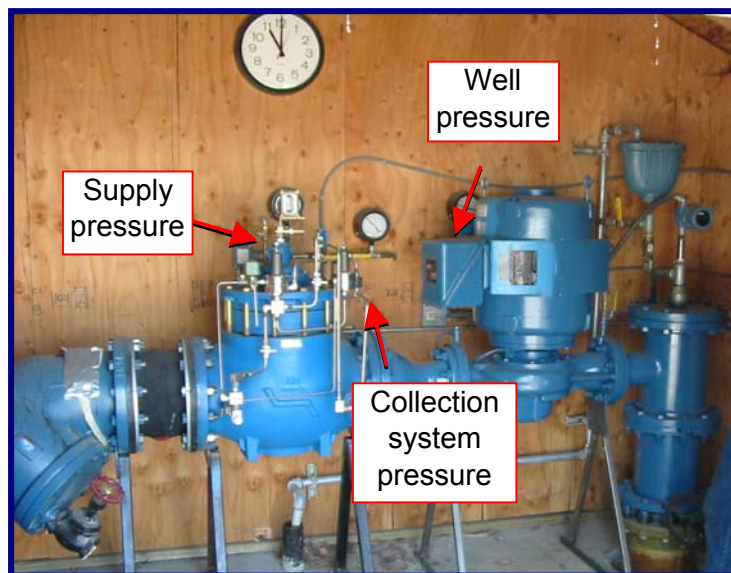
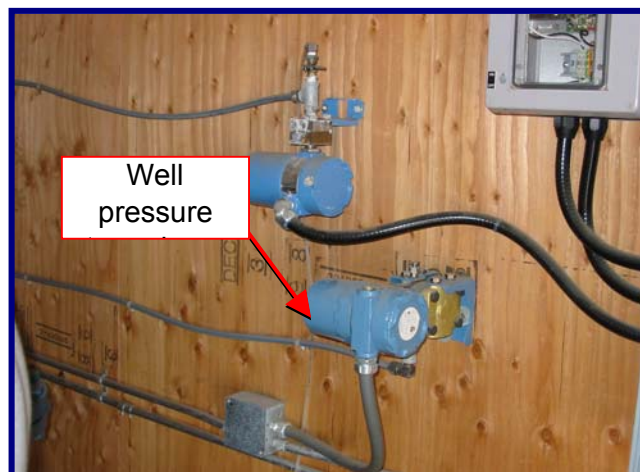
Geothermal ID:	2670	
Ground Surface Elevation (ft):	2691.48	2688.34
Survey Point Elevation (ft):	2691.48	2688.34
Measuring Point Elevation (ft):	2695.98	2692.84

Measurement Method: Pressure transducer reading

Comments:

Pressure transducer located 4.5 feet above wellhouse floor

Pressure transducer (measuring point) is 4.5 ft above the concrete slab in Stor-Mor shed.

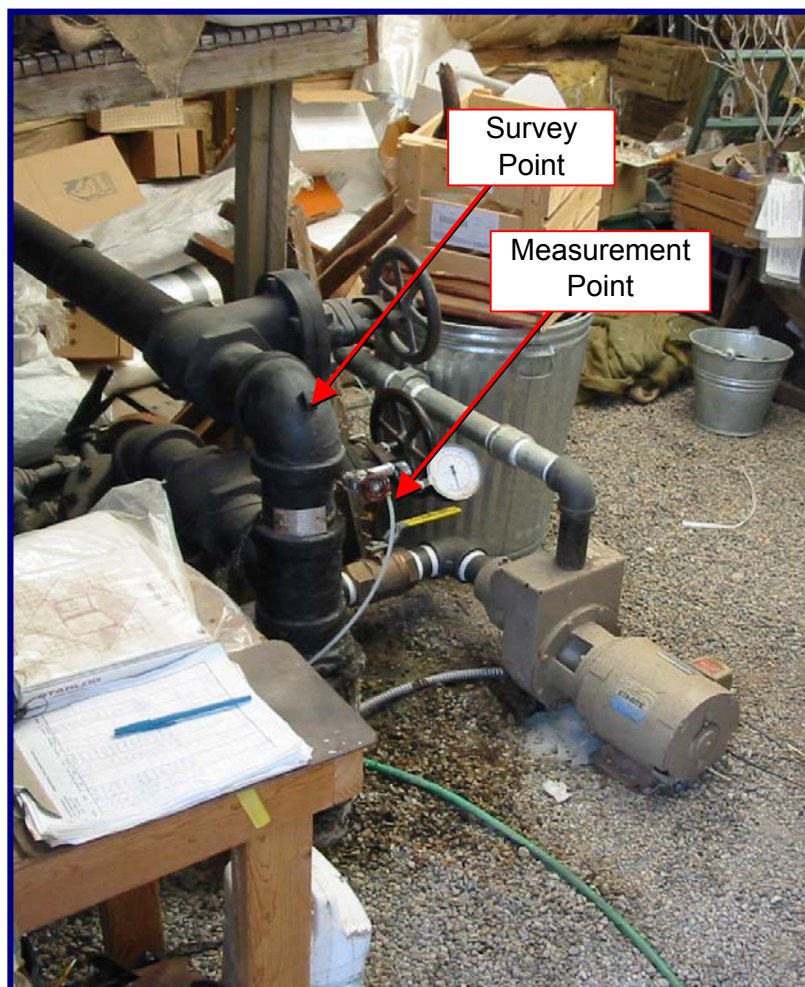


Edwards Greenhouse

Geothermal ID: 1704
Ground Surface Elevation (ft):
Survey Point Elevation (ft): 2676.23 square peg on black pipe elbow on the well
Measuring Point Elevation (ft):

Measurement Method: 30 psi pressure gauge

Comments:



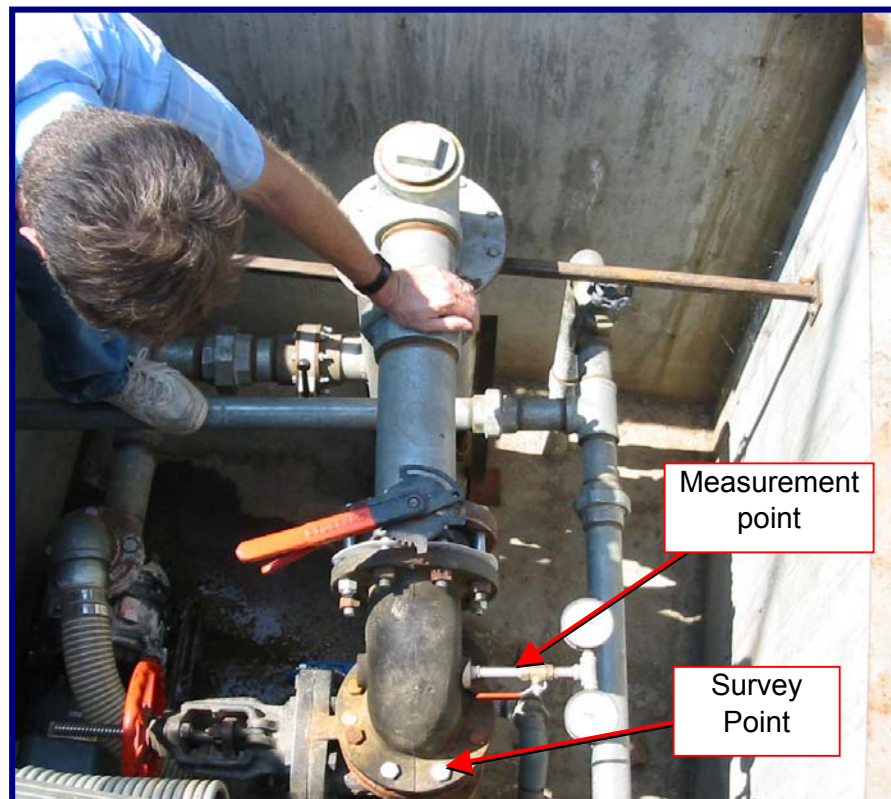
Flora (Tiegs)

Geothermal ID: 1696
Ground Surface Elevation (ft): 2692.5
Survey Point Elevation (ft): 2692.52
Measuring Point Elevation (ft): 2692.77

Top of a brass reducer pipe fitting on the well

Measurement Method: 30 psi pressure gauge

Comments: The survey point is 1.07 ft below the top of vault. The top of vault is between 0.66 ft and 1.06 ft above the surrounding sidewalk. The survey point is 0.25 feet below the measurement point.

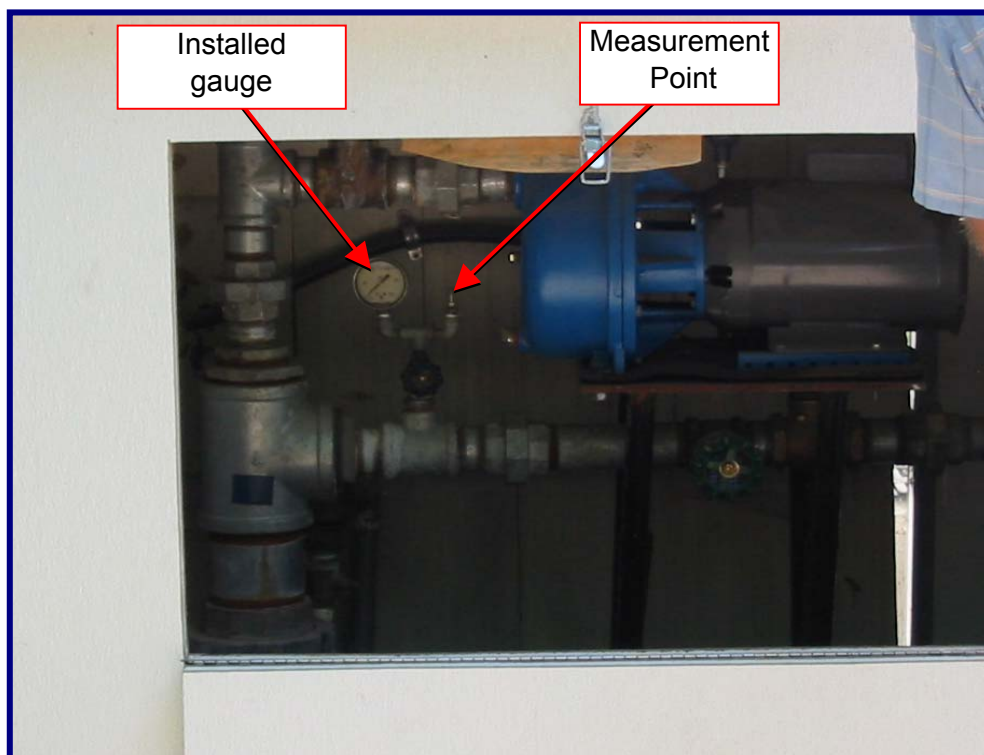


Flora Office

Geothermal ID: 1697
Ground Surface Elevation (ft): 2690.73
Survey Point Elevation (ft): 2693.88 Top of large brass coupling
Measuring Point Elevation (ft): 2693.97

Measurement Method: 30 psi pressure gauges

Comments:



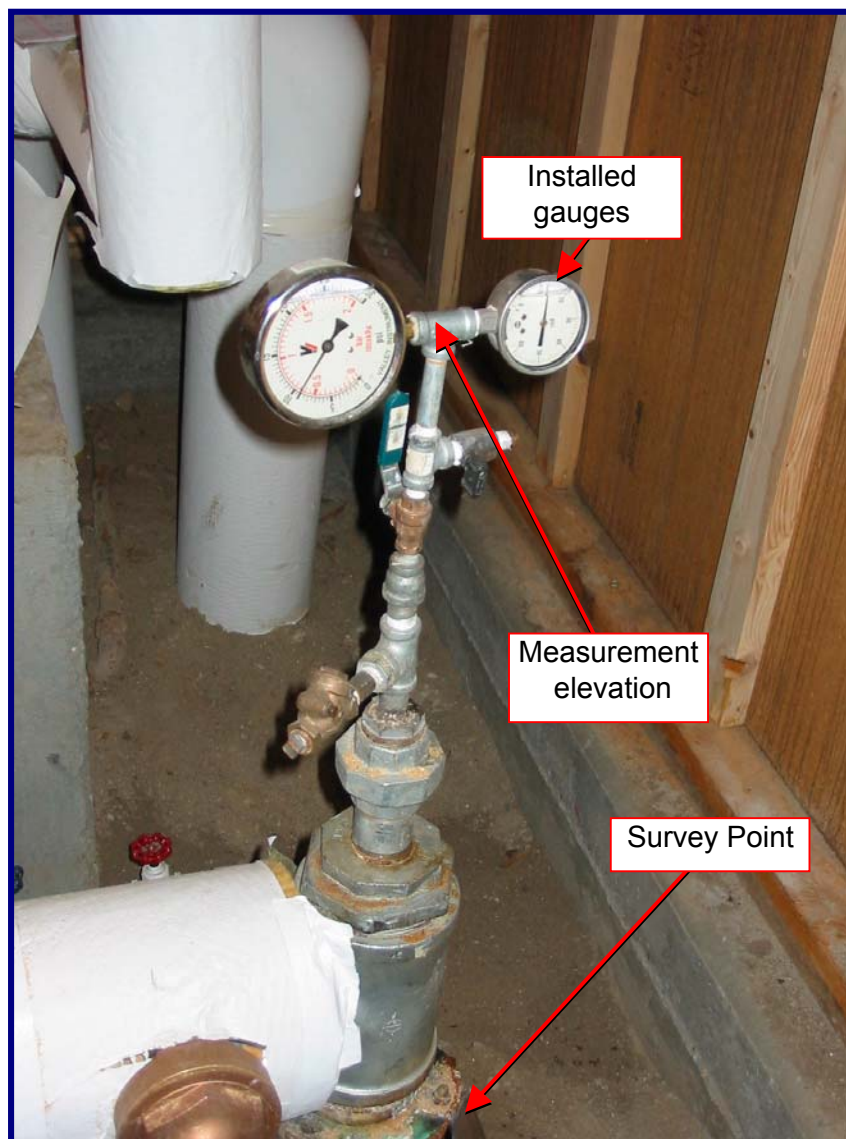
Flora Shed

Geothermal ID: 1698
Ground Surface Elevation (ft): 2690.98
Survey Point Elevation (ft): 2690.68
Measuring Point Elevation (ft): 2694.36

Chiseled "X" on steel plate attached to casing

Measurement Method: 30 psi pressure gauges

Comments:

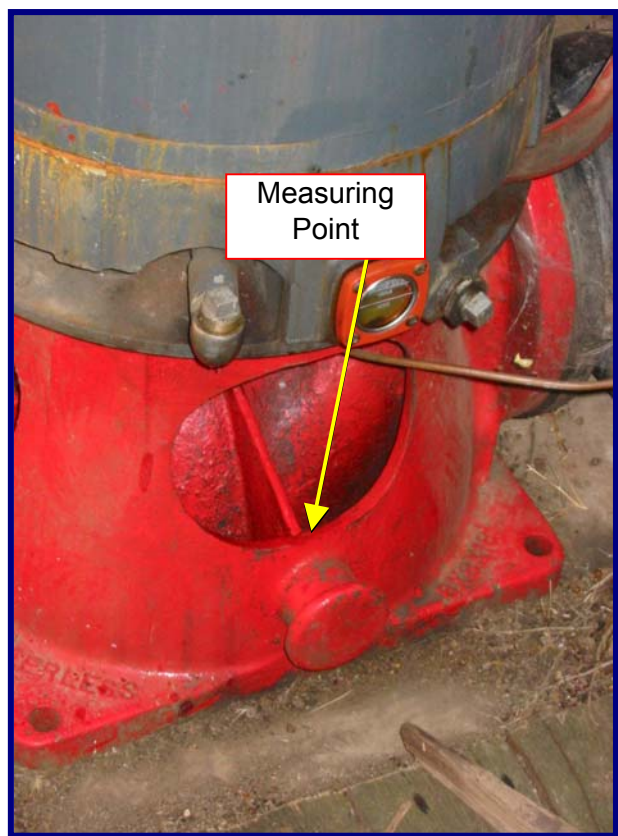
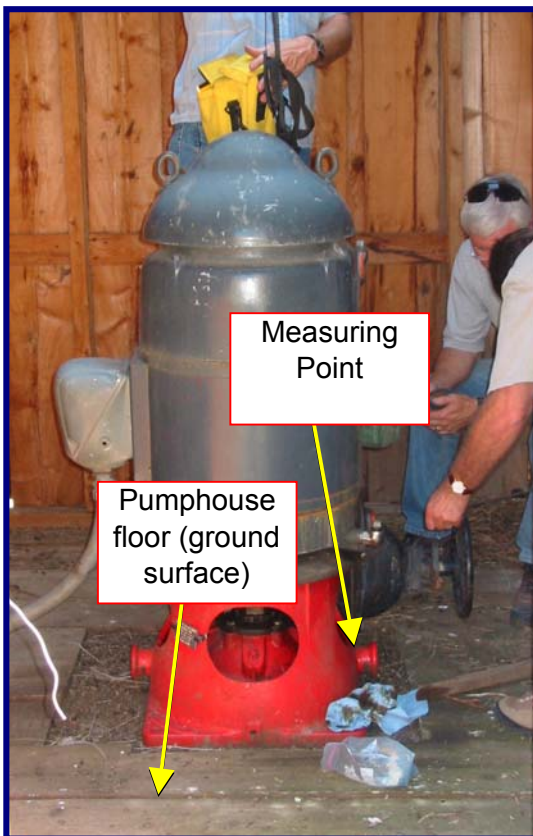


Harris East

Geothermal ID:	229	
Ground Surface Elevation (ft):	2883.51	NW corner of concrete pump base
Survey Point Elevation (ft):	2884.51	NW corner of concrete pump base
Measuring Point Elevation (ft):	2885.01	0.5 ft above the concrete pump base

Measurement Method: steel tape or electric probe

Comments:



Harris West

Geothermal ID:	230	
Ground Surface Elevation (ft):	2882.99	
Survey Point Elevation (ft):	2884.49	Top of casing
Measuring Point Elevation (ft):	2884.49	Top of casing

Measurement Method: steel tape or electric probe

Comments:



Kanta

Geothermal ID:	1646	
Ground Surface Elevation (ft):	2785.25	
Survey Point Elevation (ft):	2786.42	Top of well casing
Measuring Point Elevation (ft):	2786.42	Top of well casing

Measurement Method: steel tape or electric probe

Comments: Top -of-casing is 14" above ground surface.



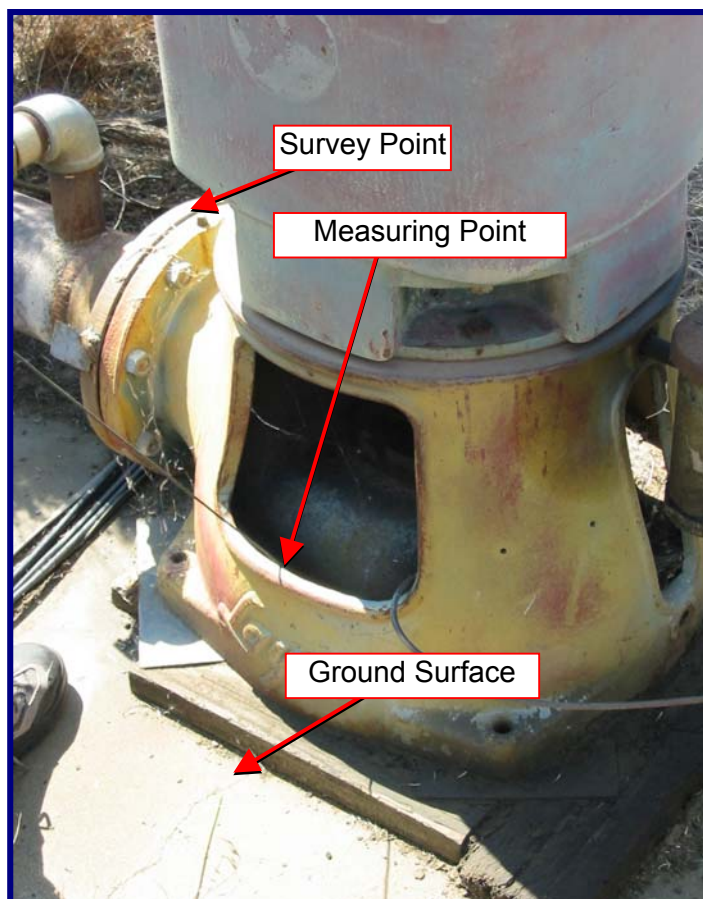
Old Pen Well (Old Pen #2)

Geothermal ID:	1645	
Ground Surface Elevation (ft):	2783.33	
Survey Point Elevation (ft):	2784.63	Top of flange on east side of pump
Measuring Point Elevation (ft):	2784.08	

Measurement Method: steel tape or electric probe

Comments:

Survey point is 1.3 ft above ground surface (defined by concrete slab under pump);
measuring point is 0.75 ft above ground surface.

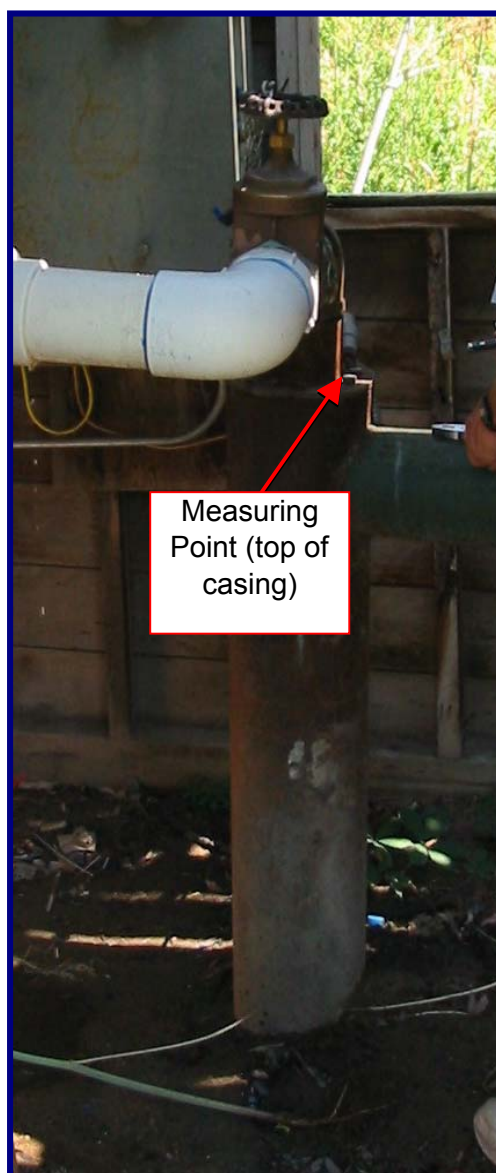


Quail Hollow Lower

Geothermal ID: 1710
Ground Surface Elevation (ft):
Survey Point Elevation (ft): 2776.46 Chiseled "X" on casing in shack
Measuring Point Elevation (ft):

Measurement Method: steel tape or electric probe

Comments:



Quail Hollow Upper

Geothermal ID: 1693
Ground Surface Elevation (ft):
Survey Point Elevation (ft): 2801.89 Chiseled "X" on top of well casing
Measuring Point Elevation (ft):

Measurement Method: steel tape or electric probe

Comments:

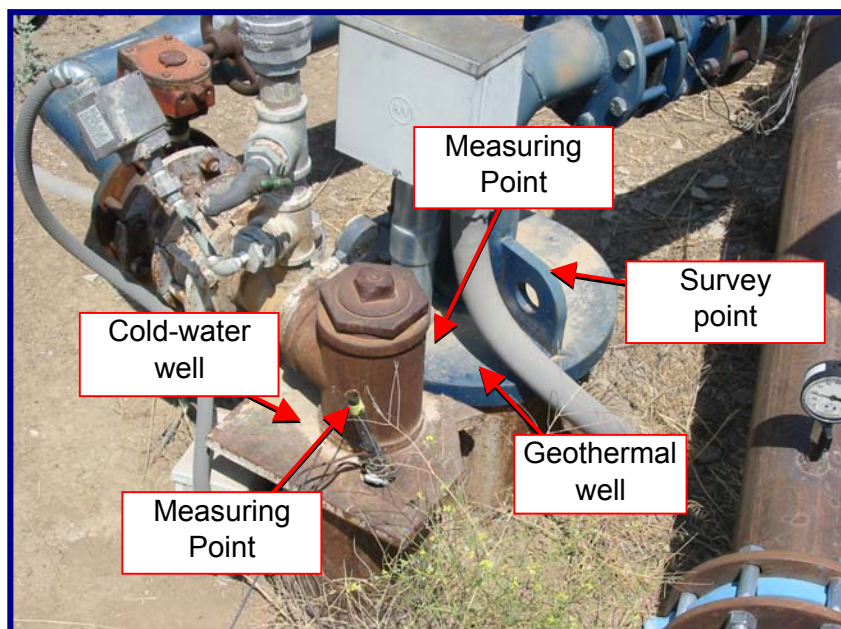


Terteling Motorcycle

Geothermal ID: 296
Ground Surface Elevation (ft): 3025.14
Survey Point Elevation (ft): 3026.07 Chiseled "X" on steel cap on top of casing
Measuring Point Elevation (ft): 3026.09

Measurement Method: steel tape or electric probe

Comments:

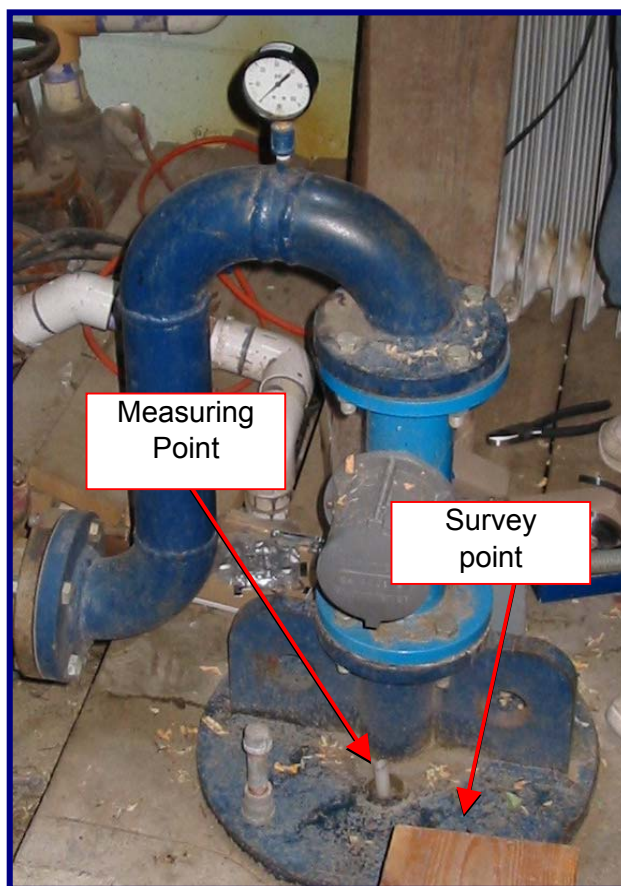


Terteling Pool

Geothermal ID: 1714
Ground Surface Elevation (ft): 2904.62
Survey Point Elevation (ft): 2904.27 On top of pump flange in shed by pool
Measuring Point Elevation (ft): 2904.37

Measurement Method: steel tape or electric probe

Comments:

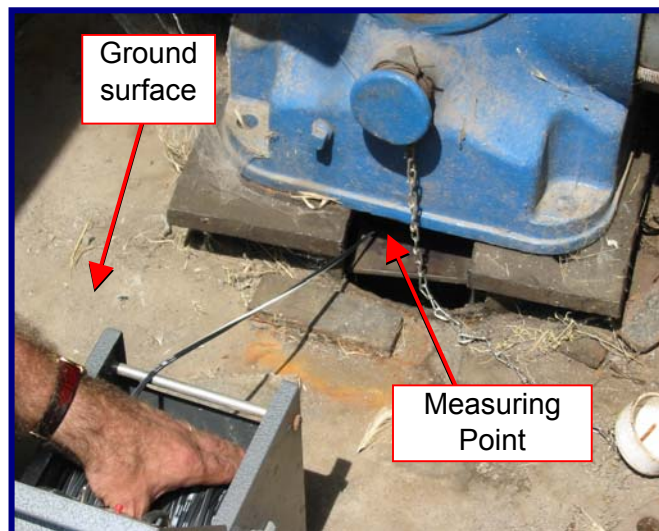
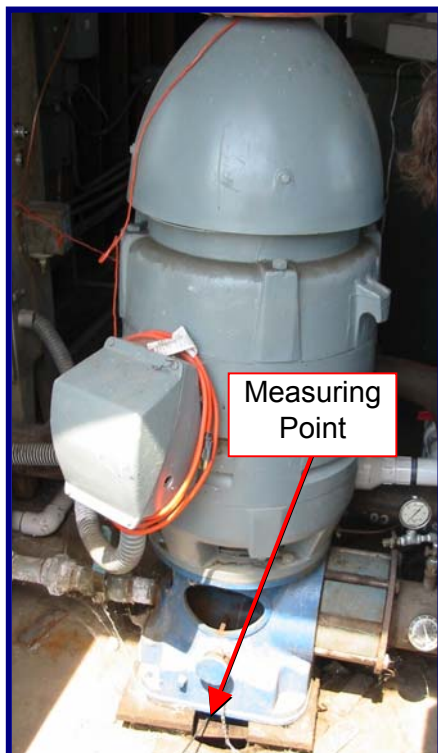


Terteling Windsock

Geothermal ID:	1712	
Ground Surface Elevation (ft):	2871.32	"X" on concrete floor by pump
Survey Point Elevation (ft):	2871.32	"X" on concrete floor by pump
Measuring Point Elevation (ft):	2871.32	

Measurement Method: steel tape or electric probe

Comments: New bracket has been installed under pump, but measuring elevations remains that of the concrete pump base.



VA Injection

Geothermal ID: 1675
Ground Surface Elevation (ft):
Survey Point Elevation (ft): 2719.95 paint spot on top of ball valve
Measuring Point Elevation (ft):

Measurement Method: Installed pressure gauge

Comments:



VA Test Injection

Geothermal ID: 1674
Ground Surface Elevation (ft): 2721.37
Survey Point Elevation (ft): 2722.87 Top of ball valve
Measuring Point Elevation (ft): 2723.57

Measurement Method: 30 psi pressure gauge

Comments:



VA Production

Geothermal ID:	1671	
Ground Surface Elevation (ft):	2767.46	Pump house floor
Survey Point Elevation (ft):	2763.91	Top of measuring port
Measuring Point Elevation (ft):	2764.91	Top of measuring port

Measurement Method: steel tape or electric probe (or 15 psi pressure gauge if artesian)

Comments:

