

STATE ENGINEER
Salem, Oregon



Well Record

STATE WELL NO. 6N/36-19B1
COUNTY UMATILLA
APPLICATION NO.

OWNER: Elmer Ferguson

MAILING ADDRESS:

LOCATION OF WELL: Owner's No.

CITY AND STATE:

1/4 1/4 Sec. T. N. S, R. E. W., W.M.

Bearing and distance from section or subdivision corner

Section

Altitude at well 860

TYPE OF WELL: Drilled Date Constructed

Depth drilled 712 Depth cased

CASING RECORD:
14-10 inch

FINISH:

AQUIFERS:

Basalt

WATER LEVEL:

24 feet below land surface, March, 1949

PUMPING EQUIPMENT: Type Turbine H.P.
Capacity 1.760 G.P.M.

WELL TESTS:

Drawdown ft. after hours G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation Temp. °F., 19

SOURCE OF INFORMATION USGS

DRILLER or DIGGER

ADDITIONAL DATA:

Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

Drawdown 7 feet at pump capacity.

UMAT 5177

Oregon G. W. Permit No. R 427
Rig: 282-1 Speed Star Churn drill

WELL NAME Water Cowan WORKS Irrigation use NO. 1

T _____, R _____, S _____, STATE Oregon COUNTY Umatilla CITY _____

LOCATED: Well originally drilled for Elmer Ferguson, Spofford ELEV. 712

WANTS: Producing formation: Columbia River basalt; total original maximum drilled depth _____

START: May 6, 1948 FINISH July 3, 1948

Well pump test: 7-7 & 7-8-48; Removal of all well drilling & testing equipment: 7-

DIAM.	FROM	TO	FT.	SWL	FORMATIONS & CONTENTS - WORK
Casing schedule and hole size: 18" O.D. casing starter, 34' extracted at well complete					
14" X 3/8" wall thickness casing with drive shoe, seated at 146' 10"; total feet: 147'					
10" I.D., 32# pipe from 147' 10" to 439' 6". 10" open basalt rock hole drilled from 439' 6" to 712'.					
Ground surface to 280', overburden formations consisting of as follows:					
	0'	25'			Top soil and clay
	25'	120'			Conglomerate with yellow clay
	120'	140'			Yellow clay
	140'	269'			Blue clay
	269'	280'			Conglomerate with blue clay
At	280'				Top of first Columbia River basalt
	280'	348'			Hard basalt
	348'	366'		30'	Broken porous basalt
	366'	432'			Blue clay
	432'	508'		42'	Medium hard basalt
	508'	555'			Very hard basalt
	555'	575'			Medium hard basalt
	575'	581'		42'	Very hard basalt
	581'	595'		31' 6"	Porous basalt aquifer; bail tested, 165 g.p.m.; could not lower water; 10" casing already seated in second basalt
	595'	618'		29' 6"	black porous basalt; lost drill cuttings between 610' and 618'.
	618'	638'			Hard black basalt
	638'	662'			Dark porous basalt; more water; cannot recover drill cuttings.
	662'	698'			Hard basalt
	698'	705'		31' 6"	Hard black basalt
	705'	712'			Very hard gray basalt; decided to pump test well
Well test data: Bottom of pump suction, 147' 6"; Peerless right angle gear turbo drive 11-stage; 12 MA bowls; 8" orifice in 10" discharge pipe; airline at 127'; SWL by auger readings shown hereafter; water temperature 67° F., 7-8-48.					
	GPM	Drawdown		Hours pumped	
	818	5'		3 hr.	
	1000	7'		1 1/2	
	1115	9'		1/2	
	1739	18'		1	
Recovery so rapid could not measure in time.					