

# Groundwater Application Review Summary Form

Application # G- 18584

GW Reviewer M. Thoma Date Review Completed: 02-04-19

## Summary of GW Availability and Injury Review:

Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

## Summary of Potential for Substantial Interference Review:

There is the potential for substantial interference per Section C of the attached review form.

## Summary of Well Construction Assessment:

The well does not appear to meet current well construction standards per Section D of the attached review form.  Route through Well Construction and Compliance Section.

*on 2/5/19*

*This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).*

**WATER RESOURCES DEPARTMENT**

**MEMO**

02-04, 2019

**TO:** Application G- 18584

**FROM:** GW: M. Thoma  
(Reviewer's Name)

**SUBJECT: Scenic Waterway Interference Evaluation**

**YES** The source of appropriation is hydraulically connected to a State Scenic Waterway or its tributaries  
 **NO**

**YES** Use the Scenic Waterway Condition (Condition 7J)  
 **NO**

Per ORS 390.835, the Groundwater Section is **able** to calculate ground water interference with surface water that contributes to a Scenic Waterway. The calculated interference is distributed below

Per ORS 390.835, the Groundwater Section is **unable** to calculate ground water interference with surface water that contributes to a scenic waterway; **therefore, the Department is unable to find that there is a preponderance of evidence that the proposed use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway**

**DISTRIBUTION OF INTERFERENCE**

*Calculate the percentage of consumptive use by month and fill in the table below. If interference cannot be calculated, per criteria in 390.835, do not fill in the table but check the "unable" option above, thus informing Water Rights that the Department is unable to make a Preponderance of Evidence finding.*

Exercise of this permit is calculated to reduce monthly flows in Rogue Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 02/04/2019  
 FROM: Groundwater Section Michael J Thoma  
 Reviewer's Name  
 SUBJECT: Application G- 18584 Supersedes review of \_\_\_\_\_  
 Date of Review(s)

**PUBLIC INTEREST PRESUMPTION; GROUNDWATER**

**OAR 690-310-130 (1)** *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525.* Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. **This review is based upon available information and agency policies in place at the time of evaluation.**

**A. GENERAL INFORMATION:** Applicant's Name: David M. Pritchett and Cornell M. Hartford  
 County: Jackson

A1. Applicant(s) seek(s) 0.067 cfs from 1 well(s) in the Rogue Basin,  
Upper Rogue subbasin

A2. Proposed use Irrigation (10 acres) Seasonality: Year Round

A3. Well and aquifer data (**attach and number logs for existing wells; mark proposed wells as such under logid**):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	JACK 56604	1	Bedrock	0.0668	34S/1W-4 SWNW	2359'S, 1247'E fr NW cor S 4

\* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	1,628	185	180	1/8/2004	225	0-18	+2-18	0-225	205-225	30	-	A

Use data from application for proposed wells.

A4. **Comments:** \_\_\_\_\_

A5.  **Provisions of the** Rogue (690-515) Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water  **are**, or  **are not**, activated by this application. (Not all basin rules contain such provisions.)  
 Comments: \_\_\_\_\_

A6.  **Well(s) #** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction.  
 Name of administrative area: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070**

B1. **Based upon available data**, I have determined that groundwater\* for the proposed use:

- a.  is over appropriated,  is not over appropriated, or  **cannot be determined to be** over appropriated during any period of the proposed use. \* This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b.  **will not** or  **will** likely be available in the amounts requested without injury to prior water rights. \* This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c.  **will not** or  **will** likely to be available within the capacity of the groundwater resource; or
- d.  **will, if properly conditioned**, avoid injury to existing groundwater rights or to the groundwater resource:
  - i.  The permit should contain condition #(s) 7N (Annual); 7J (Scenic); Medium Water-use Reporting ;
  - ii.  The permit should be conditioned as indicated in item 2 below.
  - iii.  The permit should contain special condition(s) as indicated in item 3 below;

- B2. a.  **Condition** to allow groundwater production from no deeper than \_\_\_\_\_ ft. below land surface;
- b.  **Condition** to allow groundwater production from no shallower than \_\_\_\_\_ ft. below land surface;
- c.  **Condition** to allow groundwater production only from the \_\_\_\_\_ groundwater reservoir between approximately \_\_\_\_\_ ft. and \_\_\_\_\_ ft. below land surface;
- d.  **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

**Describe injury** –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

B3. **Groundwater availability remarks:** There is a non-current OWRD Obs Well within 1 mile of the proposed POA that has measurements up to 2015 (JACK 375) and a current OWRD Obs Well just over 1 mile that has current water level data but not as long a record. Data from both wells appear to track each other so a long-term record could be interpreted from the combined data set. However, it is unclear from these data whether the long-term trend is stable so Capacity of the Resource cannot be determined and the Static Water Level Condition 7N is recommended.

There are two groundwater rights within 1 mile of the proposed POA (permits G-6800 and G-3957) but the potential for injury is low given the low rate proposed by the application and the low transmissivity of the aquifer. However, standard interference conditions are recommended.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040**

C1. **690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Bedrock of Western Cascades Volcanics	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer confinement evaluation:** In fractured-bedrock aquifer systems the primary movement of water is through discrete but connected fracture sets. These fractures generally extend to near the surface and so water within these fractures is likely under atmospheric pressure (unconfined) despite an overall low storage coefficient for the aquifer system as a whole and static water levels often reported above water-bearing zones on driller's logs

C2. **690-09-040 (2) (3):** Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Rogue River	1448	1400 - 1410	6070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Trail Creek*	1448	1430 - 1480	4730	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer hydraulic connection evaluation:** Groundwater elevations are above surface water elevations implying that groundwater is flowing towards and discharging to surface water; the Rogue River is likely the regional groundwater discharge for the area.

\*The proposed POA is within ¼ mile of the basin divide between the Rogue River and Trail Creek but this review finds that hydraulic connection to Trail Creek is insignificant compared to the Rogue River and so was not evaluated for PSI.

**Water Availability Basin the well(s) are located within:** ROGUE R > PACIFIC OCEAN – AB HOG CR (ID# 31530708)

C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked  box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

SW #	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

**Comments:** no surface water sources were evaluated within 1 mile

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins.

This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1</b>	<b>1</b>	see comments below*											
Well Q as CFS		0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Interference CFS		< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
(A) = Total Interf.		< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
(B) = 80 % Nat. Q		1860	2260	2300	2420	2500	1670	1250	1080	1020	1080	1210	1620
(C) = 1 % Nat. Q		18.6	22.6	23.0	24.2	25.0	16.7	12.5	10.8	10.2	10.8	12.1	16.2
(D) = (A) > (C)													
(E) = (A / B) x 100		< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

**Basis for impact evaluation:** Interference was not estimated because the maximum rate of appropriation is less than 1% of the 80% Natural Streamflow for the given WAB for all months so PSI under OAR 690-0090 is not assumed.

C4b. **690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.**

C5.  **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water:  
 i.  The permit should contain condition #(s) \_\_\_\_\_;  
 ii.  The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:** The applicant's proposed POA has be found to be hydraulically connected to surface water – specifically the Rogue River – at a distance of over 1 mile. However, the maximum rate of appropriation is less than 1% of the monthly 80% Natural Streamflow so Potential for Substantial Interference is not assumed per OAR 690-009

**References Used:**

Hladky, F. R. 1992. *Geology and Mineral Resources Map of the Shady Cove Quadrangle, Jackson County, Oregon.* Oregon Dept. of Geol. and Mineral Industries. GMS-52.

Oregon Department of Geology and Mineral Industries, *Geologic Map of Oregon.* <http://www.oregongeology.org/geologicmap/>

OWRD Well Log Database – Accessed 02/04/2019

Smith, J. G., N. J. Page, M. G. Johnson, B. C. Moring, F. Gray. 1982. *Preliminary Geologic Map of the Medford 1 by 2 Degree Quadrangle, Oregon and California.* USGS Open-file Report 82-955

Wiley, T. K. and J. G. Smith. 1993. *Preliminary Geologic Map of the Medford East, Medford West, Eagle Point, and Sams Valley Quadrangles, Jackson County, Oregon.* Oregon Dept. of Geology and Mineral Industries. OFR O-93-13

**D. WELL CONSTRUCTION, OAR 690-200**

D1. Well #: \_\_\_\_\_ Logid: \_\_\_\_\_

D2. **THE WELL does not appear to meet current well construction standards based upon:**

- a.  review of the well log;
- b.  field inspection by \_\_\_\_\_;
- c.  report of CWRE \_\_\_\_\_;
- d.  other: (specify) \_\_\_\_\_

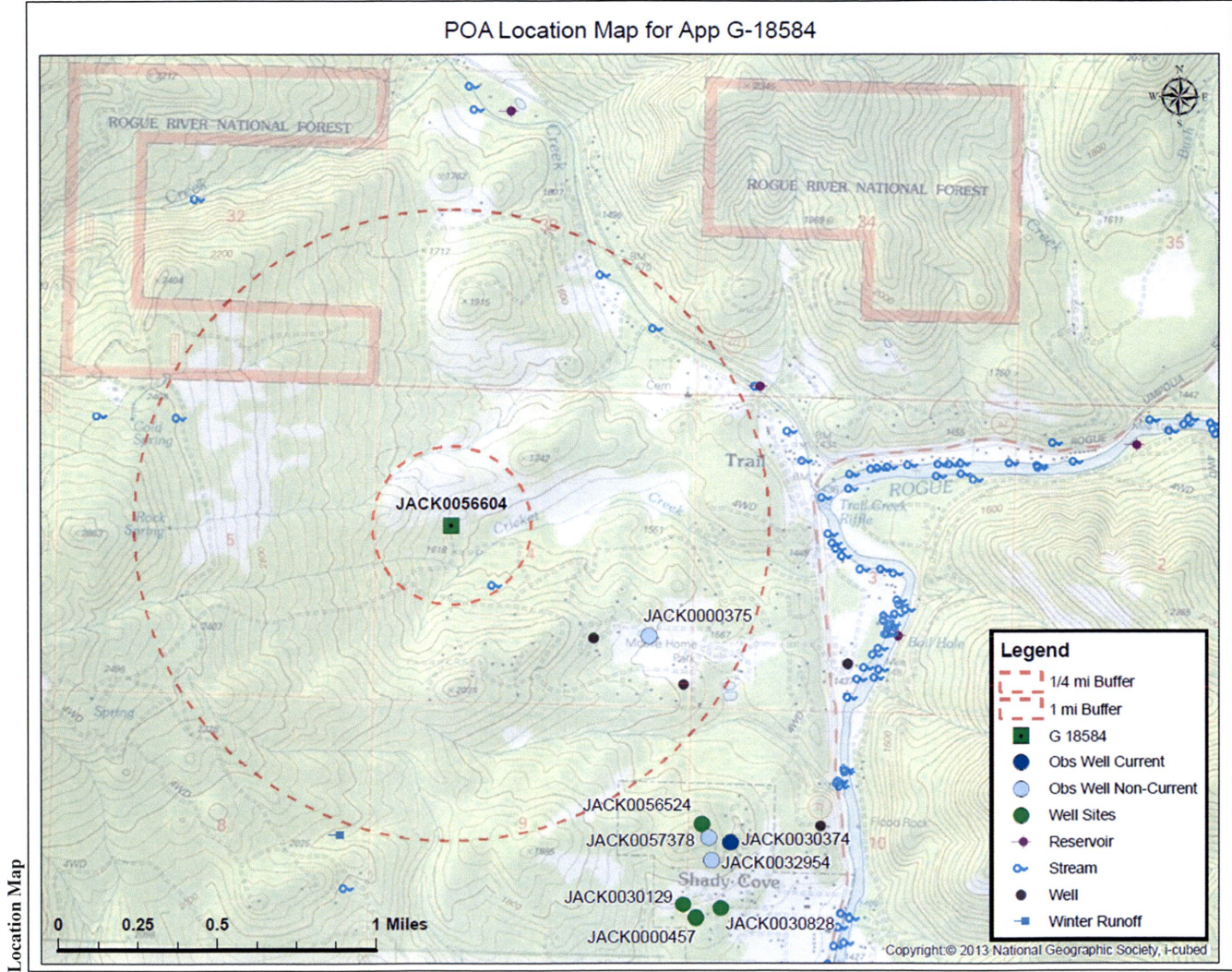
D3. **THE WELL construction deficiency or other comment is described as follows:** \_\_\_\_\_

D4.  **Route to the Well Construction and Compliance Section for a review of existing well construction.**

**Water Availability Tables**

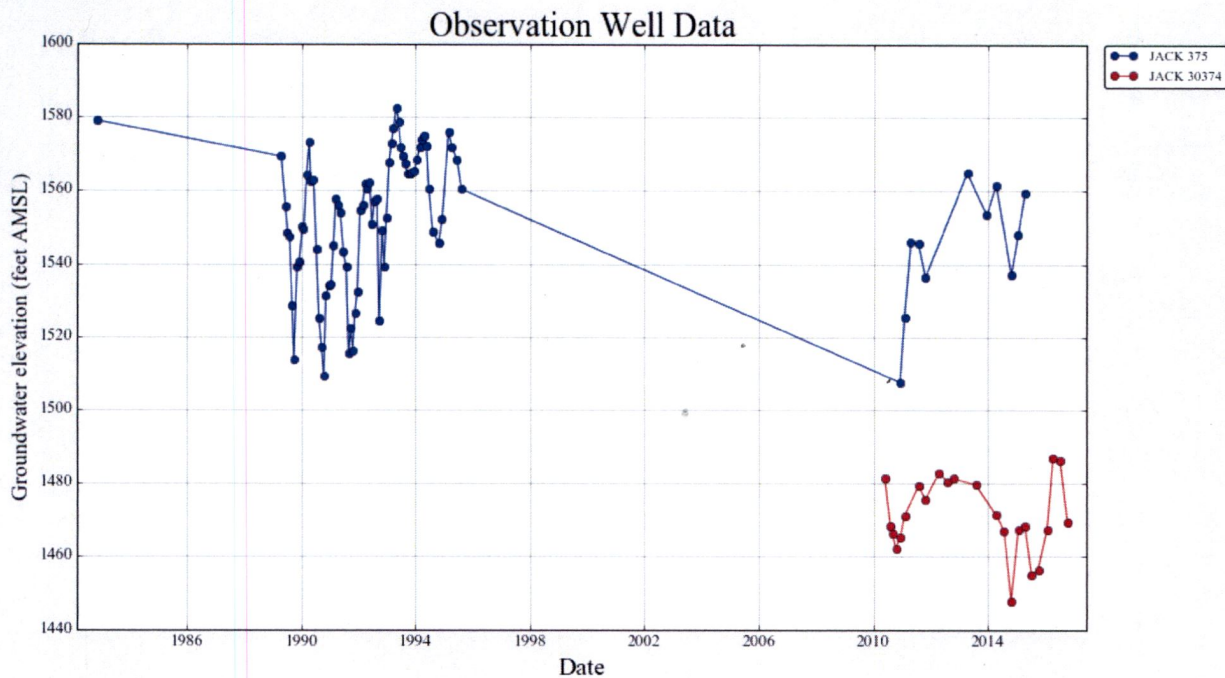
<h2 style="margin: 0;">Water Availability Analysis</h2> <h3 style="margin: 0;">Detailed Reports</h3>							
ROGUE R > PACIFIC OCEAN - AB HOG CR ROGUE BASIN							
Water Availability as of 2/4/2019							
Watershed ID #: 31530708 ( <a href="#">Map</a> )				Exceedance Level: 80% ▾			
Date: 2/4/2019				Time: 11:47 AM			
Water Availability Calculation		Consumptive Uses and Storages		Instream Flow Requirements		Reservations	
Water Rights		Watershed Characteristics					
<h3 style="margin: 0;">Water Availability Calculation</h3> <p style="margin: 0;">Monthly Streamflow in Cubic Feet per Second                      Annual Volume at 50% Exceedance in Acre-Feet</p>							
Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available	
JAN	1,860.00	913.00	947.00	0.00	0.00	947.00	
FEB	2,260.00	1,790.00	466.00	0.00	0.00	466.00	
MAR	2,300.00	1,600.00	704.00	0.00	0.00	704.00	
APR	2,420.00	1,040.00	1,380.00	0.00	0.00	1,380.00	
MAY	2,500.00	369.00	2,130.00	0.00	0.00	2,130.00	
JUN	1,670.00	291.00	1,380.00	0.00	0.00	1,380.00	
JUL	1,250.00	280.00	970.00	0.00	0.00	970.00	
AUG	1,080.00	266.00	814.00	0.00	0.00	814.00	
SEP	1,020.00	245.00	775.00	0.00	0.00	775.00	
OCT	1,080.00	227.00	853.00	0.00	0.00	853.00	
NOV	1,210.00	266.00	944.00	0.00	0.00	944.00	
DEC	1,620.00	405.00	1,210.00	0.00	0.00	1,210.00	
ANN	1,640,000.00	460,000.00	1,180,000.00	0.00	0.00	1,180,000.00	

### POA Location Map for App G-18584





### Water-Level Trends in Nearby Wells



# MEMO

ok.  
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**To:** Kristopher Byrd, Well Construction and Compliance Section Manager  
**From:** Joel Jeffery, Well Construction Program Coordinator  
**Subject:** Review of Water Right Application G-18584  
**Date:** February 8, 2019

Thomas

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Mike Toma reviewed the application. Please see Mike's Groundwater Review and the Well Log.

Applicant's Well #1 (JACK 56604): Based on a review of the Well Report, Applicant's Well #1 appears to protect the groundwater resource.

The construction of Applicants Well #1 may not satisfy hydraulic connection issues.

**STATE OF OREGON**  
**WATER SUPPLY WELL REPORT**  
(as required by ORS 537.765)

WELL I.D. # L 66399  
START CARD # 163430

Instructions for completing this report are on the last page of this form.

(1) **LAND OWNER** Well Number \_\_\_\_\_  
Name Tommy Scott  
Address P.O. Box 296  
City Trail State Oregon Zip 97541

(2) **TYPE OF WORK**  
 New Well  Deepening  Alteration (repair/recondition)  Abandonment

(3) **DRILL METHOD:**  
 Rotary Air  Rotary Mud  Cable  Auger  
 Other \_\_\_\_\_

(4) **PROPOSED USE:**  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) **BORE HOLE CONSTRUCTION:**  
Special Construction approval  Yes  No Depth of Completed Well 225 ft.  
Explosives used  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
10	0	18	Bentonite	0	18	9 sacks
5	18	225				

How was seal placed: Method  A  B  C  D  E  
 Other Dry Poured  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) **CASING/LINER:**

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 6	+2	18	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner: 4	0	225	160	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Drive Shoe used  Inside  Outside  None  
Final location of shoe(s) 18

(7) **PERFORATIONS/SCREENS:**  
 Perforations Method Saw  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
205	225	1/4 X 6	100			<input type="checkbox"/>	<input checked="" type="checkbox"/>

(8) **WELL TESTS: Minimum testing time is 1 hour**

Yield gal/min	Drawdown	Drill stem at	Flowing Time
30		215	1 hr.

Pump  Bailer  Air  Flowing Artesian

Temperature of water 58 Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done?  Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) **LOCATION OF WELL by legal description:**  
County Jackson Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 34 N or S Range 1W E or W. WM.  
Section 5 SE 1/4 NE 1/4  
Tax Lot 100 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) 1469 Madera

(10) **STATIC WATER LEVEL:**  
180 ft. below land surface. Date 1/8/04  
Artesian pressure \_\_\_\_\_ lb. per square inch Date \_\_\_\_\_

(11) **WATER BEARING ZONES:**  
Depth at which water was first found 185

From	To	Estimated Flow Rate	SWL
185	190	2	180
215	220	28	180

(12) **WELL LOG:**  
Ground Elevation \_\_\_\_\_

Material	From	To	SWL
Brown Clay	0	5	
Consolidated Basalt Very Fractured	5	225	

**RECEIVED**  
JAN 15 2004  
WATER RESOURCES DEPT  
SALEM, OREGON

Date started 1/8/04 Completed 1/8/04

(unbonded) **Water Well Constructor Certification:**  
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  
Signed Michael Terence WWC Number 1251 Date 1/12/04

(bonded) **Water Well Constructor Certification:**  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
Signed Michael Terence WWC Number 1251 Date 1/12/04

