

WATER RESOURCES DEPARTMENT

MEMO

8/26, 2016

TO: Application G- 18358

FROM: GW: M. Thomas
(Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

☒ YES

The source of appropriation is within or above a Scenic Waterway

☐ 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 _____ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

[illegible]

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 8/26/2016

FROM: Groundwater Section Michael J. Thoma
Reviewer's Name

SUBJECT: Application G- 18358 Supersedes review of n/a
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: Michael Blazeovich, B&B Global Holdings, LLC
County: Josephine

A1. Applicant(s) seek(s) 0.13 cfs from 1 well(s) in the Rogue Basin,
Illinois River subbasin

A2. Proposed use Nursery (97 acft/yr) 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	JOSE 59802	Site 1	Bedrock	0.13	T39S/R7W-20 SENW	251' N, 1545' E fr W ¼ cor S 20
2						
3						
4						
5						

* 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	1680	129	26	6/15/2016	240	0-26	0-98	0-240	220-240	18		A

Use data from application for proposed wells.

A4. **Comments:** _____

A5. ☐ **Provisions of the** Rogue 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: The Rogue Basin rules contain no such provision.

A6. ☐ **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
Name of administrative area: _____
Comments: N/A

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 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) 7J, 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:** The targeted aquifer is metamorphic bedrock of the Applegate Formation. Well yield is typically less than 5 gpm and water is found in fracture zones located at shallow depths. There are no nearby water level data available from other wells in the Applegate Formation, and no groundwater PODs located within one mile. The groundwater resource cannot be determined to be over-appropriated with the available information.

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	Metamorphic Rocks of the Applegate Formation	☒	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: The applicant's well log, and other logs in the area, report that static water level rises above the first water-bearing zone, indicating the aquifer is more confined than unconfined.

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	Kelly Creek	1654	1654	1675	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: The groundwater level reported on the well log is coincident with nearby streambeds, indicating groundwater discharges to surface water locally.

Water Availability Basin the well(s) are located within: E FK ILLINOIS R > ILLINOIS R - AT MOUTH (ID #: 70980)

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?
1	1	☐	☐	n/a	n/a	☐	41.50	☐	*	☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

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?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: * Interference at 30 days could not be estimated because the terrain (high-relief slopes) and geology (fractured bedrock aquifer) do not meet model assumptions of the widely accepted techniques for determining stream depletion (e.g., Hunt 1999, 2003).

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
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(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: N/A

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:
- ☐ The permit should contain condition #(s) _____;
 - ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

C6. SW / GW Remarks and Conditions: N/A

References Used:

Hunt, B. 1999. Unsteady Stream Depletion from Ground Water Pumping. Journal of Hydrologic Engineering, Vol 8(1), pp 12-19

Hunt, B. 2003. Unsteady Stream Depletion when Pumping from a Semiconfined Aquifer. Journal of Hydrologic Engineering, Vol 8(1), pp 12-19.

Ramp, Lee and Peterson, Norman V., 1979, Geology and Mineral Resources of Josephine County, Oregon, State of Oregon Department of Geology and Mineral Industries Bulletin 100.

U.S. Geological Survey topographic map, Holland Quadrangle.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: this section is not applicable

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

Water Availability Analysis Detailed Reports

E FK ILLINOIS R > ILLINOIS R - AT MOUTH ROGUE BASIN

Water Availability as of 8/19/2016

Watershed ID #: 70980 ([Map](#))

Exceedance Level: 80%

Date: 8/19/2016

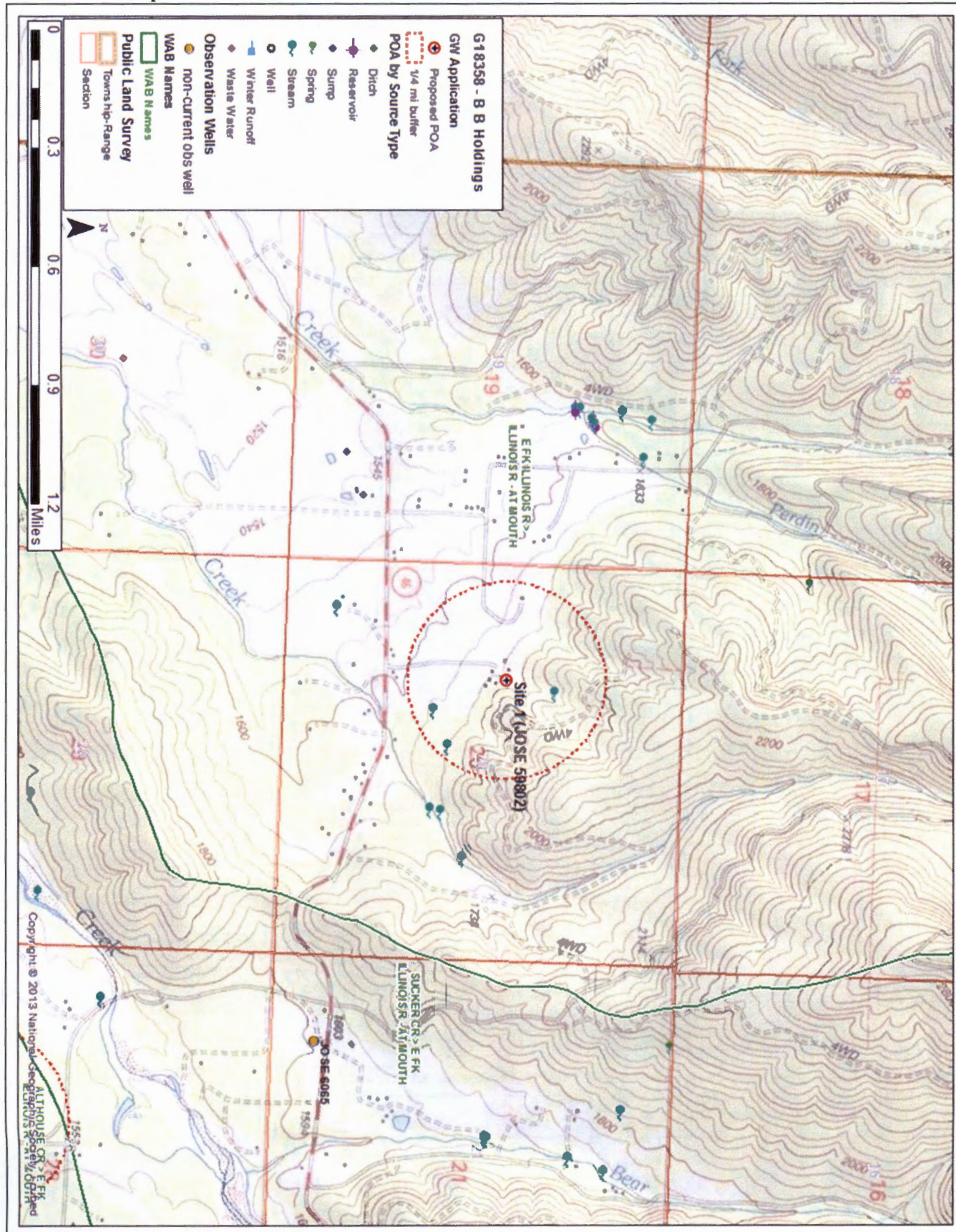
Time: 12:06 PM

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	342.00	4.20	338.00	0.00	135.00	203.00
FEB	535.00	4.36	531.00	0.00	135.00	396.00
MAR	556.00	4.40	552.00	0.00	135.00	417.00
APR	498.00	8.94	489.00	0.00	135.00	354.00
MAY	317.00	11.70	305.00	0.00	135.00	170.00
JUN	139.00	14.80	124.00	0.00	80.00	44.20
JUL	66.30	18.60	47.70	0.00	60.00	-12.30
AUG	46.10	15.90	30.20	0.00	54.00	-23.80
SEP	41.50	11.60	29.90	0.00	70.00	-40.10
OCT	47.70	6.00	41.70	0.00	100.00	-58.30
NOV	102.00	3.51	98.50	0.00	135.00	-36.50
DEC	290.00	4.01	286.00	0.00	135.00	151.00
ANN	330,000.00	6,540.00	323,000.00	0.00	78,900.00	249,000.00

Well Location Map



Well Log

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

JOSE 59802
6/23/2016

WELL ID. LABEL# L 122827
START CARD # 1030916
ORIGINAL LOG #

Page 1 of 2

(1) LAND OWNER
Owner Well ID.
First Name MICHAEL Last Name BLAZERICK
Company B&B GLOBAL HOLDINGS LLC
Address 621 W ROSECRANS AVE #201
City GARDENA State CA Zip 90248

(2) TYPE OF WORK ☒ New Well ☐ Deepening ☐ Conversion
☐ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION
Dia + From To Gauge Std Plstc Wld Thrd
Casing: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Material From To Amt sacks/lbs
Seal: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

(3) DRILL METHOD
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE ☐ Domestic ☒ Irrigation ☐ Community
☐ Industrial/Commercial ☐ Livestock ☐ Dewatering
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION Special Standard ☐ (Attach copy)
Depth of Completed Well 240.00 ft.
BORE HOLE SEAL
Dia From To Material From To Amt sacks/lbs
10 0 26 Bentonite Chips 0 26 12 S
6 26 240 Calculated 11.87
Calculated
How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other DRY POURED
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount Actual Amount

(6) CASING/LINER
Casing Liner Dia + From To Gauge Std Plstc Wld Thrd
☒ ☐ 6 ☒ 2 98 250 ☒ ☐ ☐ ☐
4 0 240 Sch 40 ☐ ☐ ☐ ☐
Shoe ☐ Inside ☒ Outside ☐ Other Location of shoe(s) 98
Temp casing ☐ Yes Dia From To

(7) PERFORATIONS/SCREENS
Perforations Method Saw Cut
Screens Type Material
Perf. Casing/Screen Dia From To Scrns/slot Slot # of Tele/
Screen Liner Dia From To width length slots pipe size
Perf Liner 4 220 240 .188 4 60
Perf Liner 4 220 240 .188 4 60

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian
Yield gal/min Drawdown Drill stem Pump depth Duration (hr)
18 240 1
Temperature 54 °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount 200 ppm
From To Description Amount Units

(9) LOCATION OF WELL (legal description)
County JOSEPHINE Twp 39.00 S N/S Range 7.00 W E/W WM
Sec 20 SE 1/4 of the NW 1/4 Tax Lot 500
Tax Map Number Lot
Lat " or 42.16264000 DMS or DD
Long " or -123.55754000 DMS or DD
☒ Street address of well ☐ Nearest address
5150 CAVES HWY CAVE JUNCTION, OR 97523

(10) STATIC WATER LEVEL
Date SWL(psi) + SWL(ft)
Existing Well / Pre-Alteration
Completed Well 6/15/2016 26
Flowing Artesian? ☐ Dry Hole? ☐
WATER BEARING ZONES Depth water was first found 129.00
SWL Date From To Est Flow SWL(psi) + SWL(ft)
6/15/2016 129 132 2 26
6/15/2016 174 176 10 26
6/15/2016 207 209 6 26

(11) WELL LOG
Ground Elevation
Material From To
ORANGE CLAY 0 12
BROWN SERPENTINE SOFT 12 15
BROWN/GREY SERPENTINE MED 15 72
GREY SERPENTINE HARD 72 129
GREY SERPENTINE SOFT 129 134
GREY SERPENTINE HARD 134 145
DARK GREY SERPENTINE MEDIUM 145 174
GREY GREEN SERPENTINE HARD 174 227
BLUE GREY SERPENTINE HARD 227 240

Date Started 6/15/2016 Completed 6/15/2016

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, 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.
License Number Date
Signed

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, 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.
License Number 1835 Date 6/23/2016
Signed KEVIN D GILL (E-filed)
Contact Info (optional) CLOUSER DRILLING INC.

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version: