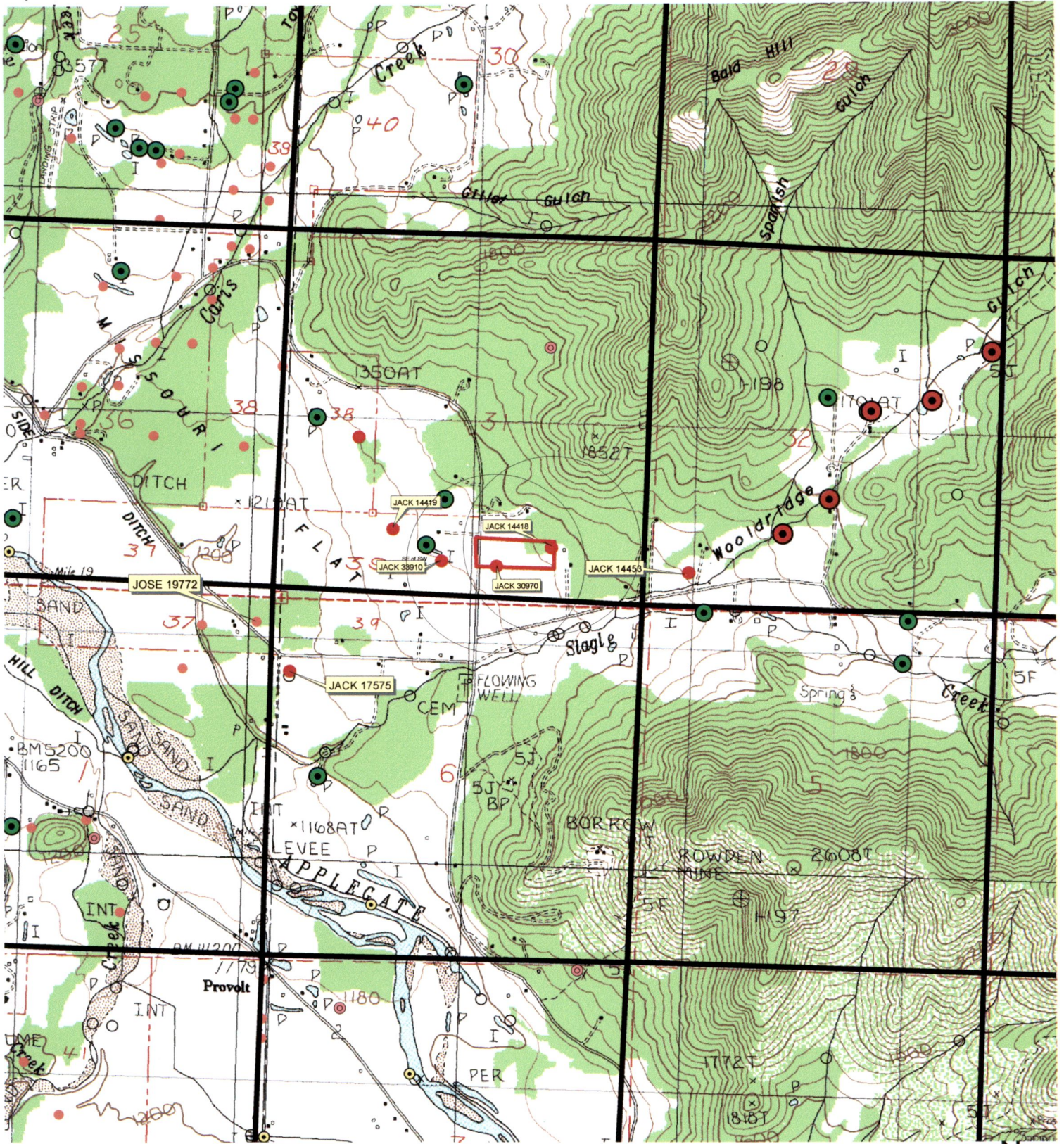


G-16701 Conner 37S/04W-31 DC



PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO: Water Rights Section Date September 12, 2006

FROM: Ground Water/Hydrology Section Ivan Gall
Reviewer's Name

SUBJECT: Application G- 16701 Supersedes review of NA
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 ground water 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: Gary and Cassie Conner County: JACK

A1. Applicant(s) seek(s) 0.125 cfs from 2 well(s) in the Rogue Basin,
ApplegateRiver/Slagle Creek subbasin Quad Map: Applegate

A2. Proposed use: Irrigation Seasonality: April 1 to October 31

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 14418	1	Bedrock	0.125	37S/04W-31SWSE	810' N, 1200' E fr S ¼ cor S 31
2	JACK 30970	2	Bedrock	0.125	37S/04W-31SWSE	580' N, 400' E fr S ¼ cor S 31
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	1375	na	35.5	7/11/2006	150	NA	NA	2-150	120-150	12	NA	A
2	1335	55	12.9	7/11/2006	180	0-39	+1-39	0-180	20-170	50	na	A

Use data from application for proposed wells.

A4. Comments: Unable to locate original log for JACK 14418.

A5. Provisions of the Rogue Basin rules relative to the development, classification and/or management of ground water 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. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. Based upon available data, I have determined that ground water* 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 ground water 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 ground water 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 ground water resource; or
- d. will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:
 - i. The permit should contain condition #(s) 7B, 7C (March), 7F;
 - 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 ground water production from no deeper than _____ ft. below land surface;
- b. Condition to allow ground water production from no shallower than _____ ft. below land surface;
- c. Condition to allow ground water production only from the fractured bedrock ground water reservoir;
- 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 Ground Water 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. **Ground water availability remarks:** *** Require applicant to install and maintain a properly functioning, totalizing flow meter on each well. Record monthly and submit annually water use data to OWRD.

Well yields in the area are relatively good, being generally greater than 10 gpm and as high as 100+ gpm. Well depths are generally less than 250 feet. Overall, the fractured bedrock aquifer has better than average yields for this area.

According to Tom Wiley – DOGAMI, bedrock in the area consists of meta-sediments with some intrusives. The area lies near the contact between the granitic pluton and the meta-sediments. Some meta-volcanics have also been mapped in the area, and may appear as “sandstone” in well logs. The end of Slagle Creek Road is the contact between the granitic rocks and the meta-sediments.

The groundwater section database does not contain any permit condition reporting information for this area. There are several groundwater rights in the area. I have received no well interference complaints from this area.

C. GROUND WATER/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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Bedrock	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: Relatively shallow depth to first water, well-fractured nature of aquifer. Aquifer likely progressively more confined with depth.

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	Slagle Creek	1340	1320	1320	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	1	Slagle Creek	1322	1320	1350	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Applegate River	1340	1155	6200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	2	Applegate River	1322	1155	5400	<input checked="" type="checkbox"/>	<input 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"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Aquifer head greater than or equal to surface water stage, groundwater discharge to streams supports baseflow during late summer on Slagle Creek and Applegate River.

Water Availability Basin the well(s) are located within: APPLEGATE R > ROGUE R - AT MOUTH

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	<input type="checkbox"/>	<input type="checkbox"/>	na	na	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<25%*	<input type="checkbox"/>
2	1	<input type="checkbox"/>	<input type="checkbox"/>	na	na	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<25%	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<25%	<input type="checkbox"/>
2	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<25%	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<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"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: *Given the two surface water boundaries, the complex nature of the fractured bedrock aquifer, and unknown hydraulic conductivity and storage values, making a suitable estimate from the Jenkins or Hunt analytical models is not appropriate at this time. Many of the model assumptions are not met within this hydrogeological scenario.

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													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
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: _____

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. **THE WELL does not 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:**

- a. constitutes a health threat under Division 200 rules;
- b. commingles water from more than one ground water reservoir;
- c. permits the loss of artesian head;
- d. permits the de-watering of one or more ground water reservoirs;
- e. other: (specify) _____

D4. **THE WELL construction deficiency is described as follows:** _____

D5. **THE WELL** a. was, or was not constructed according to the standards in effect at the time of original construction or most recent modification.

b. I don't know if it met standards at the time of construction.

D6. **Route to the Enforcement Section.** I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

D7. Well construction deficiency has been corrected by the following actions: _____

_____, 200____.
(Enforcement Section Signature)

D8. **Route to Water Rights Section (attach well reconstruction logs to this page).**

Water Availability as of 6/ 1/2006 for

APPLEGATE R > ROGUE R - AT MOUTH

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80
 Time: 13:23 Date: 06/01/2006
 Select an Item Number for More Details

Item #	Watershed ID #	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sto
1	266	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	YES	YES
2	31531008	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES
3	31531001	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES
4	31531002	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
5	249	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION

Water Availability as of 6/ 1/2006 for

APPLEGATE R > ROGUE R - AT MOUTH

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80
 Time: 13:23 Date: 06/01/2006

Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net Water Available
1	373.00	4.97	368.00	0.00	300.00	68.00
2	674.00	438.00	235.00	0.00	300.00	-64.70
3	792.00	437.00	354.00	0.00	340.00	14.40
4	662.00	459.00	203.00	0.00	340.00	-137.00
5	591.00	41.60	549.00	0.00	360.00	189.00
6	222.00	57.20	165.00	0.00	360.00	-195.00
7	91.80	75.50	16.20	0.00	120.00	-104.00
8	59.00	62.70	-3.74	0.00	120.00	-124.00
9	45.80	41.90	3.87	0.00	120.00	-116.00
10	56.00	15.30	40.70	0.00	360.00	-319.00
11	146.00	3.48	143.00	0.00	360.00	-217.00
12	244.00	4.26	240.00	0.00	300.00	-60.30
Stor-50%	421000	97484	323000	0	204000	160000

DETAILED REPORT OF INSTREAM REQUIREMENTS

Water Availability as of 6/ 1/2006 for

APPLEGATE R > ROGUE R - AT MOUTH

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80
 Time: 13:23 Date: 06/01/2006

APP #	MF	249	0	0	0	0	0	0	MAXIMUM
1	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00
2	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00
3	340.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	340.00
4	340.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	340.00
5	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
6	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
7	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
8	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
9	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
10	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
11	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
12	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00

GW Water Level Input - Standard

Logid JACK 30970	Well Tag Log	Csg Diam Field6	TRS37.00 S. /4.00 W. - .31 DCC.....
State Obs Well	Well Tag Field	Max Depth	CountyJACK
Use IRRIGATION.....			Quad24APPLEGATE
Owner Well Name			Lsd Elev1335 LsdAccuracy20
Owner GARY CONNER.....			Ph Home 541-846-0216.....
Contact		Call Before Visit	Ph Work
Owner			Ph Cell
Comments			FAX
	Y	Call First Phone541-846-0216
Well Address 1494 KUBLI ROAD.....			

Sow Num	Logid	Source Org	SourceOWRD	Date	Time	MP Hght	Reprtd Wtr Lvl	Verified WL BLS	Export WL BLS	Method
JACK	30970	DRILLER	WELL LOG	07/09/1991			26		26.00	UNKNOWN
JACK	30970	OWRD	WELL LOG	07/11/2006	8:26	1.15		12.88	12.88	ETAPE

GW Water Level Input - Standard

Logid JACK.....14418	Well Tag Log	Csg Diam Field8.	TRS37.00 S./4.00 W. - .31 DC.....
State Obs Well	Well Tag Field	Max Depth	CountyJACK
Use IRR & DOMESTIC.....			Quad24APPELEGATE
Owner Well Name			Lsd Elev1375
Owner GARY AND CONNER.....			LsdAccuracy20
Contact		Call Before Visit	Ph Home 541-846-0216.....
Owner			Ph Work
Comments			Ph Cell
			FAX
	Y	Call First Phone541-846-0216
Well Address 1494 KUBLI ROAD.....			

Sow Num	Logid	Source Org	SourceOWRD	Date	Time	MP Hght	Reprted Wtr Lvl	Verified WL BLS	Export WL BLS	Method
.....	JACK.....14418	DRILLER.....	WELL LOG.....	05/08/1989.....			8.....		8.00	UNKNOWN.....
.....	JACK.....14418	OWRD.....	GRANTS PASS.....	07/11/2006.....	8:40.....	1.70.....		35.47.....	35.47	ETAPE.....