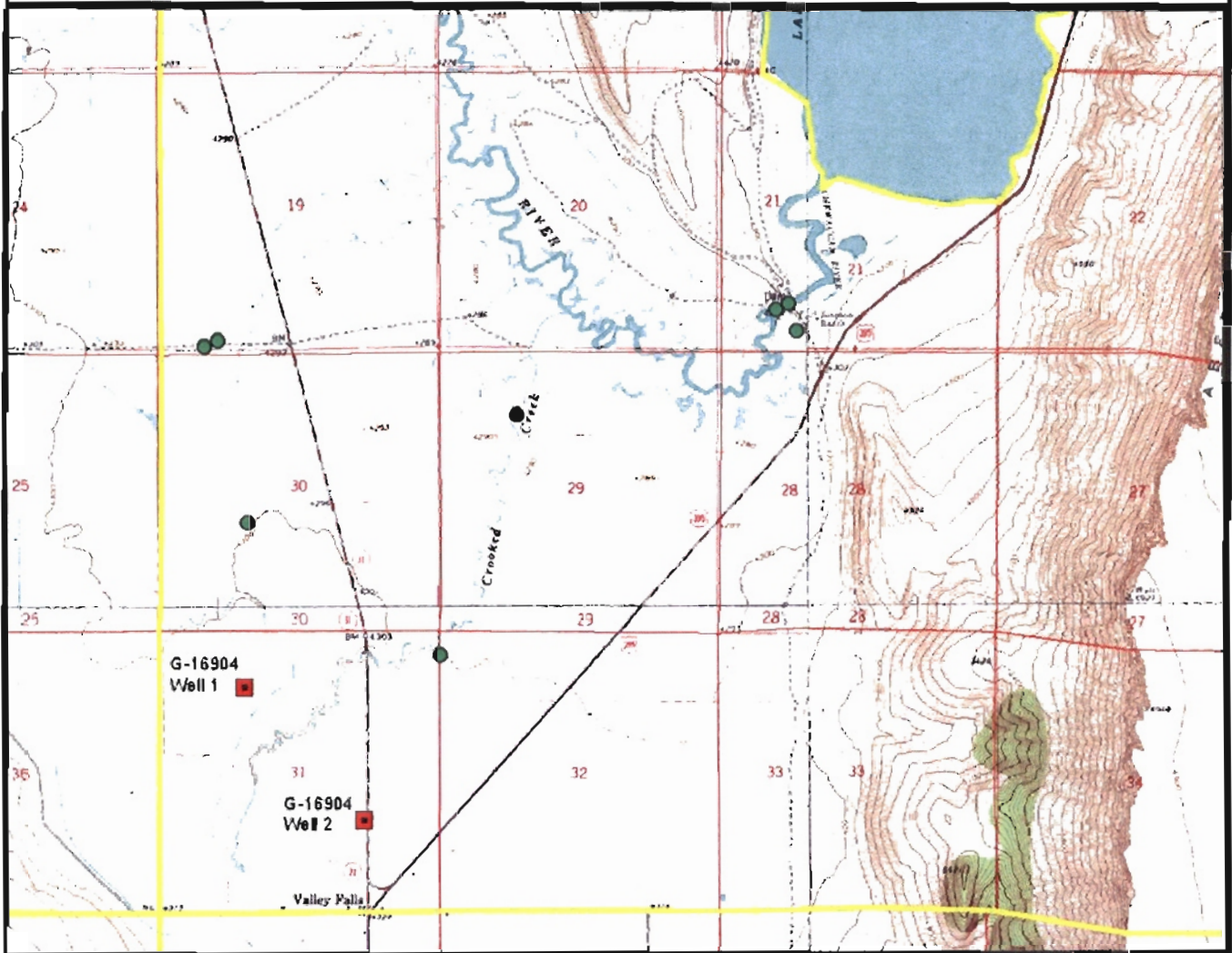


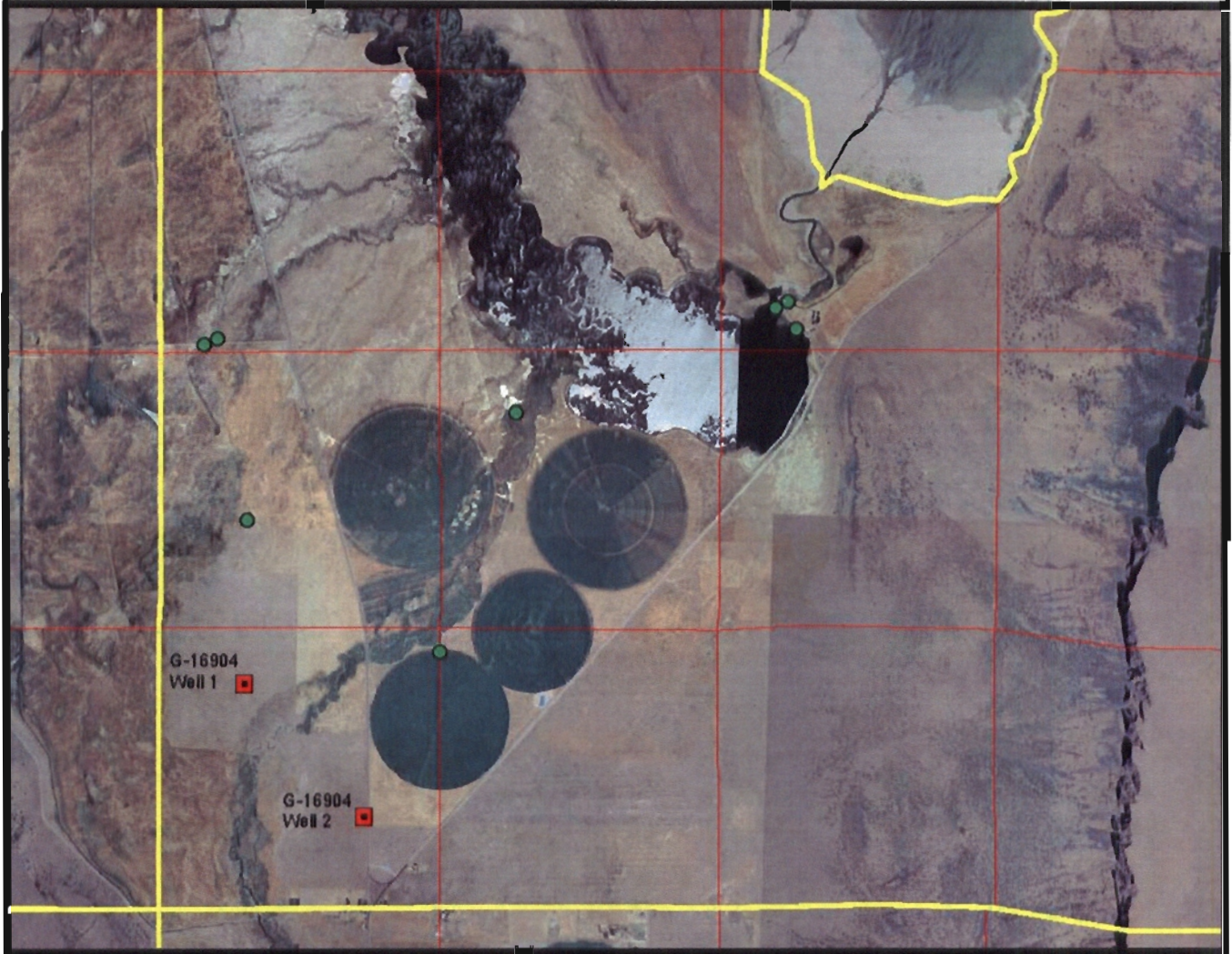
Ground Water Application G-16904 Valley Falls Ranch, Inc.



Proposed Wells = not drilled



Ground Water Application G-16904 Valley Falls Ranch, Inc.

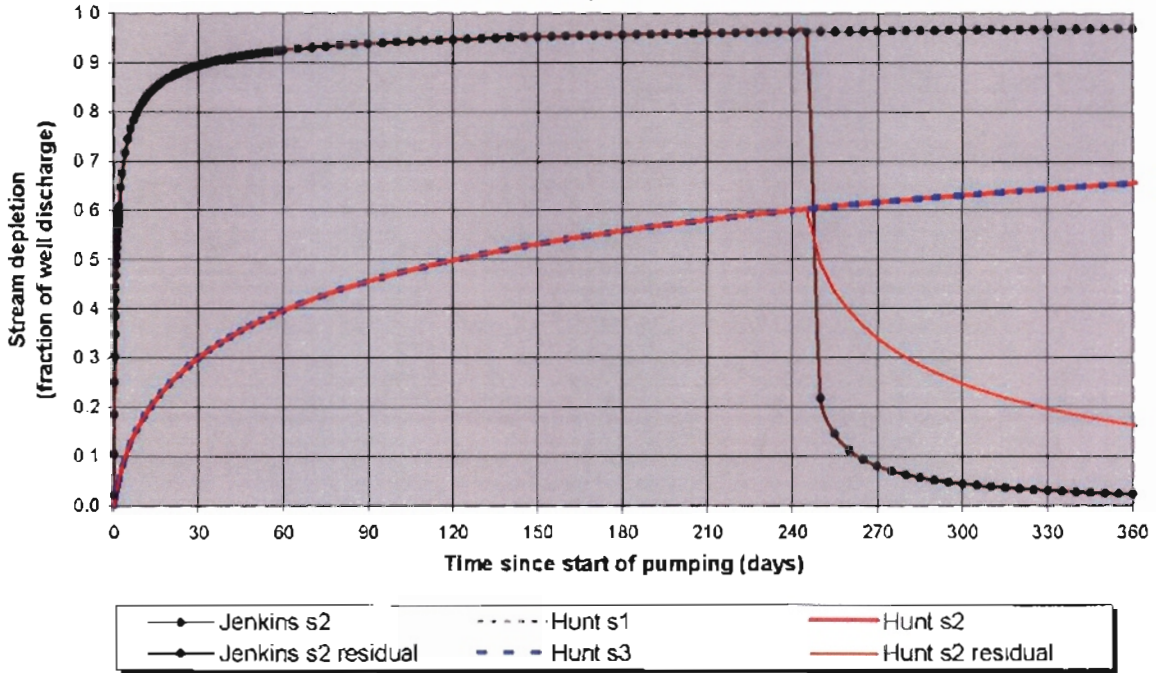


Proposed Wells = not drilled





Transient Stream Depletion (Jenkins, 1970; Hunt, 1999)
Proposed Well 1 to Crooked Creek

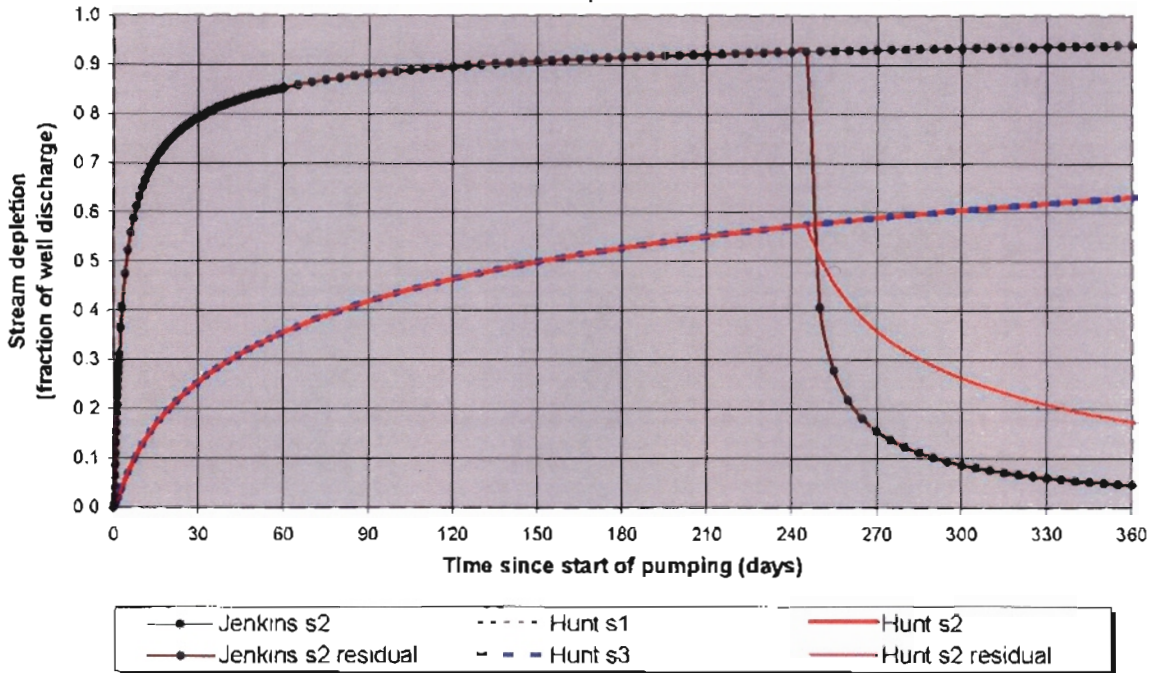


Output for Hunt Stream Depletion, Scenario 2 (s2): Time pump on = 245 days

Days	30	60	90	120	150	180	210	240	270	300	330	360
Hunt SD s2	0.3002	0.3962	0.4559	0.4987	0.5318	0.5588	0.5809	0.5999	0.3396	0.2472	0.1984	0.1630
Qw, cfs	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520
H SD s2, cfs	0.758	0.999	1.149	1.257	1.340	1.408	1.464	1.512	0.856	0.623	0.495	0.411

Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate	Qw	2.52	2.52	2.52	cfs
Distance to stream	a	1025	1025	1025	ft
Aquifer hydraulic conductivity	K	20	20	20	ft/day
Aquifer thickness	b	500	500	500	ft
Aquifer transmissivity	T	10000	10000	10000	ft ² /day
Aquifer storage coefficient	S	0.01	0.01	0.01	
Stream width	ws	100	100	100	ft
Streambed hydraulic conductivity	Ks	0.4	0.4	0.4	ft/day
Streambed thickness	bs	25	25	25	ft
Streambed conductance	sbc	1.6	1.6	1.6	ft/day
Stream depletion factor (Jenkins)	sdf	1.050625	1.050625	1.050625	days
Streambed factor (Hunt)	sbf	0.164	0.164	0.164	

Transient Stream Depletion (Jenkins, 1970; Hunt, 1999)
Proposed Well 2 to Crooked Creek



Output for Hunt Stream Depletion, Scenario 2 (s2): Time pump on = 245 days

Days	30	60	90	120	150	180	210	240	270	300	330	360
Hunt SD s2	0.2548	0.3551	0.4180	0.4634	0.4986	0.5271	0.5509	0.5712	0.3581	0.2623	0.2090	0.1737
Qw, cfs	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520
H SD s2, cfs	0.642	0.895	1.053	1.168	1.257	1.328	1.388	1.439	0.902	0.681	0.527	0.438

Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate	Qw	2.52	2.52	2.52	cfs
Distance to stream	a	2025	2025	2025	ft
Aquifer hydraulic conductivity	K	20	20	20	ft/day
Aquifer thickness	b	500	500	500	ft
Aquifer transmissivity	T	10000	10000	10000	ft ² /day
Aquifer storage coefficient	S	0.01	0.01	0.01	
Stream width	ws	100	100	100	ft
Streambed hydraulic conductivity	Ks	0.4	0.4	0.4	ft/day
Streambed thickness	bs	25	25	25	ft
Streambed conductance	sbc	1.6	1.6	1.6	ft/day
Stream depletion factor (Jenkins)	sdf	4.100625	4.100625	4.100625	days
Streambed factor (Hunt)	sbf	0.324	0.324	0.324	

Theis Equation specific capacity to transmissivity						
G 16904 Valley Falls Ranch Lake Abert						
Basin Fill						
Well County	Well Num	Transmissivity ft ² /day	Open Interval feet	Conductivity ft/day		
LAKE	1766	220.83	15.00	14.72		
LAKE	1767	1,214.08	13.00	93.39		
			Average		54.06	ft/day
Basin Fill & Basalt						
Well County	Well Num	Transmissivity ft ² /day	Open Interval feet	Conductivity ft/day		
LAKE	1769	2,101.20	475.00	4.42		
			Average		4.42	ft/day
			Overall Average		37.51	ft/day