

Mr. Bob Harrington
Inyo County Water Department
135 South Jackson Street
Independence, CA 93526

January 4, 2010

RE: Summary of Hydrologic Monitoring Activities
Rose Valley, Inyo County, California
Hay Ranch Project Conditional Use Permit #2007-03

Dear Mr. Harrington:

This letter is intended to summarize hydrologic monitoring activities conducted in December 2009 by TEAM Engineering & Management, Inc. (TEAM), related to the Hay Ranch Water Extraction Project and CUP #2007-03.

Baseline Data Collection

On December 17, 2009, static depth-to-water (DTW) measurements, one visual observation of the Siphon Well Outflow and four sets of flow rates were collected by TEAM from 30 monitoring locations in the Rose Valley area, as summarized in the attached table (Table 1). Pressure transducer data were downloaded from 24 units, including one "BaroTroll" measuring barometric pressure. On December 1, a DTW measurement at LADWP 816 Well was taken by LADWP personnel.

Groundwater samples were collected from the Hay Ranch South and Coso Junction Store #2 wells on December 28. These samples have been sent to TestAmerica, a California-Certified Analytical Laboratory, to be analyzed for total dissolved solids (TDS).

Baseline Data Collection Exceptions

There were no notable baseline data collection exceptions. However, RV30 (Cal Pumice Well) displayed a notable drop in water level (approximately 5 feet) on 12/3/09. This drop was captured by the in-well pressure transducer and confirmed by three manual reads (two reads on 12/17/09 and one read on 12/28/09).

Maintenance/Installation Activities

Coso Operating Company completed construction of the Hay Ranch South water delivery system and also installed a pump totalizer for the Hay Ranch South production line. This totalizer read 741,800,000 gallons at the commencement of Hay Ranch South pumping. Coso Operating Company began limited pumping from the Hay Ranch South Well on December 25, 2009.

Phase 2: Startup Monitoring and Reporting

On December 28, 2009, 12 static depth-to-water (DTW) measurements, one visual observation of the Siphon Well Outflow and three sets of flow rates were collected by TEAM from 17 monitoring locations in the Rose Valley area, as summarized in the attached table (Table 2). Pressure transducer data was downloaded from 15 units, including one "BaroTroll" measuring barometric pressure. A Hay Ranch South pump totalizer reading of 744,710,000 gallons was taken by TEAM at 13:07, December 28. This reading represents approximately 2,910,000 gallons of groundwater extracted from the Hay Ranch South production well during the period of project initiation on December 25 to December 28, 2009.

Data Transmittal

ICWD supplied TEAM with project baseline levels on December 23. Using these baseline levels and drawdown data from the Hay Ranch CUP Hydrologic Monitoring and Mitigation Plan Table 3-1, TEAM established a "Hay Ranch CUP Trigger Levels 2009/10" data sheet.

TEAM has posted updates to the "Coso" database on the ICWD web server. TEAM has also uploaded new Rose Valley hydrographs in PDF form to the ICWD website.

Sincerely,

TEAM Engineering & Management, Inc.



Keith Rainville
Staff Geologist

Table 1
Field Observations of Rose Valley Hydrologic Monitoring Points
December 17, 2009

Project Name:	Hay Ranch Project HMMP	Date: December 17, 2009
Location:	Rose Valley, Inyo County	
Observer(s):	K. Rainville	Page: 1 of 1

Well ID	Monitoring Point	Date	Time	DTW (ft)	Flow (cfs)	GWE (ft amsl)	Method	Transducer Log Interval	Notes
RV-10	Dews	12/17/09	9:28	232.10		3754.82	TEAM manual read	NA	
RV-20	LADWP 816	12/01/09	15:05	79.28		3435.78	LADWP manual read	NA	Data provided by LADWP
RV-30	Cal Pumice	12/17/09	8:39	245.99		3259.90	TEAM manual read	Hourly	Notable GWE drop on 12/3/09 captured by PT
RV-40	Dunmovin	12/17/09	10:00	294.76		3253.11	TEAM manual read	NA	
RV-50	Hay Ranch North	NM	NM	NM		NM	TEAM manual read	NA	No DTW, well area under construction
RV-60	Hay Ranch 1A	12/17/09	8:07	187.94		3244.23	TEAM manual read	Hourly	
RV-61	Hay Ranch 1B	12/17/09	8:16	188.78		3243.07	TEAM manual read	Hourly	
RV-62	Hay Ranch 1C	12/17/09	8:24	185.99		3245.51	TEAM manual read	Hourly	
RV-70	Hay Ranch South	NM	NM	NM		NM	TEAM manual read	NA	No DTW, well area under construction
RV-80	Hay Ranch 2A	12/17/09	7:43	191.97		3241.03	TEAM manual read	Hourly	
RV-81	Hay Ranch 2B	12/17/09	7:32	194.08		3238.55	TEAM manual read	Hourly	
RV-82	Hay Ranch 2C	12/17/09	7:54	189.50		3242.60	TEAM manual read	Hourly	
RV-90	Coso Jct Ranch	12/17/09	8:59	170.98		3232.15	TEAM manual read	Hourly	
RV-100	Coso Jct Store #1	12/17/09	10:27	142.20		3229.92	TEAM manual read	Hourly	
RV-110	Davis Ranch North Well	12/17/09	12:30	6.47		3886.53	TEAM manual read	Hourly	
RV-111	Davis Ranch South Well	12/17/09	12:45	11.24		3886.76	TEAM manual read	Hourly	
RV-112	Davis Ranch South Flume	12/17/09	13:05	NA	0.013	NA	TEAM manual read	Hourly	
RV-120	Red Hill Well (BLM)	12/17/09	12:07	140.11		3200.72	TEAM manual read	Hourly	
RV-130	G-36	12/17/09	11:55	180.13		3199.89	TEAM manual read	NA	
RV-140	Lego	12/17/09	11:43	222.24		3200.61	TEAM manual read	Hourly	
RV-150	Cinder Road	12/17/09	10:44	190.97		3186.99	TEAM manual read	Hourly	
RV-160	18-28 GTH	12/17/09	11:20	174.06		3188.52	TEAM manual read	Hourly	
RV-170	Fossil Falls Campground	12/17/09	13:34	141.20		3175.57	TEAM manual read	NA	
RV-180	LLR North Well	12/17/09	14:14	40.10		3159.00	TEAM manual read	Hourly	
RV-210	LLR Dock Well	12/17/09	14:27	5.96		3148.18	TEAM manual read	Hourly	
RV-220	LLR Surface Level	12/17/09	14:35	3.39		3147.65	TEAM manual read	Hourly	
RV-230	LLR Little Lake Outflow	12/17/09	15:08	NA	0.10	NA	TEAM manual read	Hourly	
RV-240	LLR Coso Springs Flow	12/17/09	14:56	NA	0.56	NA	TEAM manual read	Hourly	
RV-245	LLR North Culvert Flow	12/17/09	15:27	NA	0.55	NA	TEAM manual read	Hourly	
RV-250	LLR Siphon Discharge	12/17/09	15:26	NA	Yes	NA	TEAM visual read	NA	Discharging into Pond 2
RV-260	LLR Hotel Well	12/17/09	13:55	0.19		3138.59	TEAM manual read	Hourly	

NM - not measured; NA - not applicable; IO - Inoperative

DTW - Depth to water in feet below top of casing or other reference point

Table 2
Field Observations of Rose Valley Hydrologic Monitoring Points
December 28, 2009

Project Name:	Hay Ranch Project HMMP	Date: December 28, 2009
Location:	Rose Valley, Inyo County	
Observer(s):	K. Rainville	Page: 1 of 1

Well ID	Monitoring Point	Date	Time	DTW	Flow	GWE	Method	Transducer Log Interval	Notes
				(ft)	(cfs)	(ft amsl)			
RV-30	Cal Pumice	12/28/09	9:45	246.08		3259.81	TEAM manual read	Hourly	
RV-60	Hay Ranch 1A	12/28/09	13:25	188.68		3243.49	TEAM manual read	Hourly	
RV-61	Hay Ranch 1B	12/28/09	13:30	194.11		3237.74	TEAM manual read	Hourly	
RV-62	Hay Ranch 1C	12/28/09	13:34	188.29		3243.21	TEAM manual read	Hourly	
RV-70	Hay Ranch South	12/28/09	13:07	NA	Yes	NA	TEAM manual read	NA	2,910,000 gallons since project initiation
RV-80	Hay Ranch 2A	12/28/09	12:45	192.05		3240.95	TEAM manual read	Hourly	
RV-81	Hay Ranch 2B	12/28/09	12:40	198.72		3233.91	TEAM manual read	Hourly	
RV-82	Hay Ranch 2C	12/28/09	12:51	190.53		3241.57	TEAM manual read	Hourly	
RV-100	Coso Jct Store #1	12/28/09	12:15	142.27		3229.85	TEAM manual read	Hourly	
RV-180	LLR North Well	12/28/09	10:21	40.07		3159.03	TEAM manual read	Hourly	
RV-210	LLR Dock Well	12/28/09	10:31	5.92		3148.22	TEAM manual read	Hourly	
RV-220	LLR Surface Level	12/28/09	10:36	3.38		3147.66	TEAM manual read	Hourly	
RV-230	LLR Little Lake Outflow	12/28/09	11:04	NA	3.07	NA	TEAM manual read	Hourly	
RV-240	LLR Coso Springs Flow	12/28/09	10:50	NA	0.56	NA	TEAM manual read	Hourly	
RV-245	LLR North Culvert Flow	12/28/09	11:20	NA	2.03	NA	TEAM manual read	Hourly	
RV-250	LLR Siphon Discharge	12/28/09	11:15	NA	Yes	NA	TEAM visual read	NA	Discharging into Pond 2
RV-260	LLR Hotel Well	12/28/09	10:05	0.15		3138.63	TEAM manual read	Hourly	

NM - not measured; NA - not applicable; IO - Inoperative

DTW - Depth to water in feet below top of casing or other reference point