Tables and Figure

Table 1
Dairy Farms with Monitoring Wells Installed in Fall 2012
Phase 2 Representative Monitoring Program

Dairy Farm	County	Physical Facility Address	City, State, Zip Code
Brentwood Farms	Tehama	24555 Clark Ave	Orland, CA 95963
Creekside Farms Silveira Dairy	Glenn	6259 CR 25	Orland, CA 95963
MTSJ Dairy LP	Glenn	6916 CR 30	Orland, CA 95963
Durrer Dairy	Stanislaus	8861 Beckwith Rd	Modesto, CA 95358
Genasci Dairy	Stanislaus	6555 Blue Gum Ave	Modesto, CA 95358
Machado Dairy	Fresno	4423 W Central Ave	Fresno, CA 93706
Sozinho Dairy #2	Fresno	8489 E Elkhorn Ave	Selma, CA 93662
Sozinho Jerseys	Fresno	4877 E Mountain View Ave	Selma, CA 93662
Manuel and Alda Lawrence Dairy	Kings	12871 Kent Ave	Hanford, CA 93230
J & A Dairy	Tulare	12212 Avenue 176	Tulare, CA 93274
Richmar Farms Dairy	Kern	1129 E Shafter Rd	Bakersfield, CA 93307

Table 2
Construction Details of Monitoring Wells Installed in Fall 2012
Phase 2 Representative Monitoring Program

Well Name	Date Installed	Drilling Oversight (a)	Borehole Diameter (inches)	Borehole Depth (feet, bgs) (b)	--- Screen Intervals --- Well A (Shallow) (feet, bgs)	Well B (Deep) (feet, bgs)	Sand Pack (feet, bgs)	Cement Surface Seal (feet, bgs)	Transition Seal (feet, bgs) (c)	Bentonite Seal (feet, bgs)	Wellhead Completion
North Area											
Brentwood Farms											
BRE-MW1	10/1/12	LSCE, WA	12	116.5	15-30	85-100	12-31, 45-70, 80-102	0-11	(FS) 11-12	31-45, 70-80, 102-116.5	(d)
BRE-MW2d	10/2/12	LSCE, CM	12	146.5	not applicable	116-126	93-107, 113-130 [130]	0-80	(B) 80-93	107-113	(d)
BRE MW2s	10/2/12	LSCE, CM	8	110	95-105	not applicable	90-110	0-88	(FS) 88-90	none	(d)
BRE -MW3	10/2/12	LSCE, WA	12	116.5	88-98	103-108	85-99, 102-110 [110]	0-75	(B) 75-85	99-102	(d)
Creekside Dairy											
CRE-MW1	9/26/12	LSCE, WA	12	120	11-16	95-120	10-17, 25-62, 67-80, 90-120	0-9	(FS) 9-10	17-25, 62-67, 80-90	(e)
CRE-MW2	9/26/12	LSCE, TA	12	41.5	10-20	27-37	9-21, 25-40 [40]	0-8	(FS) 8-9	21-25	(e)
CRE-MW3	9/25/12	LSCE ,TA	12	61.5	11-16	38-58	10-17, 25-60 [60]	0-9	(FS) 9-10	17-25	(e)
MTSJ Dairy											
MTS-MW1	9/28/12	LSCE, WA	8	91.5	60-80	not applicable	55-90 [90]	0-48	(B) 48-55	none	(d)
MTS-MW2	9/27/12	LSCE, TA	12	71.5	13-28	53-68	12-29, 39-68 [68]	0-11	(FS) 11-12	29-39	(e)
MTS-MW3	9/27/12	LSCE, WA	12	71.5	10-25	55-70	8-28, 38-47, 52-70 [70]	0-7	(FS) 7-8	28-38, 47-52	(e)
Central Area											
Durrer Dairy											
DUR-MW10	10/4/12	LSCE, CM	12	46.5	5-20	30-40	4-21, 28-42 [42]	0-3	(FS) 3-4	21-28	(d)
Genasci Dairy Inc											
GEN-MW11	10/3/12	LSCE, CM	12	41.5	10-25	30-40 [41]	9-25, 29-41 [41]	0-8	(FS) 8-9	25-29	(d)
GEN-MW12	10/3/12	LSCE, WA	12	36.5	10-20	25-35	9-21, 24-35 [35]	0-8	(FS) 8-9	21-24	(d)
South Area											
J & A Dairy											
JAD-MW4	10/16/12	LSCE, WA	12	81.5	50-60	65-75	44-61, 64-75	0-43	(FS) 43-48	61-64	(d)
JAD-MW5	10/15/12	LSCE, WA	12	106.5	70-80	90-105	68-82, 88-105 [105]	0-63	(FS) 63-68	82-88	(d)
JAD-MW6	10/15/12	LSCE, TA/JH	12	116.5	55-70	78-93	50-72, 76-98 [98]	0-48	(FS) 48-50	72-76	(d)
JAD-MW7	10/16/12	LSCE, JH	12	83	50-65	70-80	48-66, 70-83	0-43	(FS) 43-48	66-70	(d)
Machado Dairy											
ADO-MW1	10/9/12	LSCE, WA	12	111.5	82-92	98-108	82-92, 97-110 [110]	0-75	(FS) 75-80	93-97	(d)
ADO-MW2	10/9/12	LSCE, CM	12	111.5	80.5-90.5	100-110	79-91, 92-110 [110]	0-73	(B) 73-74, (FS) 74-79	91-92	(d)
Manuel & Alda Lawrence Dairy											
MAL-MW7	10/11/12	LSCE, TA	8	55	10-30	not applicable	8-31, 36-55 [55]	0-6	(FS) 6-8	31-36	(e)
MAL-MW8	10/11/12	LSCE, WA	8	36.5	20-30	not applicable	18-36.5 [30]	0-15	(FS) 15-18	none	(e)

Table 2
Construction Details of Monitoring Wells Installed in Fall 2012
Phase 2 Representative Monitoring Program

Well Name	Date Installed	Drilling Oversight (a)	Borehole Diameter (inches)	Borehole Depth (feet, bgs) (b)	--- Screen Intervals --- Well A (Shallow) (feet, bgs)	Well B (Deep) (feet, bgs)	Sand Pack (feet, bgs)	Cement Surface Seal (feet, bgs)	Transition Seal (feet, bgs) (c)	Bentonite Seal (feet, bgs)	Wellhead Completion
Richmar Farms Dairy											
RIC-MW7	10/22/12	LSCE, WA	12	51.5	10-25	30-45	9-26, 29-46 [46]	0-7	(B) 7-9	26-29	(d)
RIC-MW8	10/17/12	LSCE, JH	12	51.5	17-27	31-46	16-28, 30-47 [47]	0-13	(FS) 13-16	28-30	(d)
RIC-MW9	10/17/12	LSCE, WA	12	51.5	10-25	30-45	9-26, 29-46 [46]	0-7	(FS) 7-9	26-29	(d)
Sozinho Dairy #2											
SO2-MW5	10/10/12	LSCE, WA	12	106.5	75-90	95-105	72-91, 94-105 [105]	0-65	(FS) 65-70, (B) 70-72	91-94	(e)
SO2-MW6	10/10/12	LSCE, CM	12	102	70-85	89.5-99.5	68-86, 87-102	0-62	(B) 62-63, (FS) 63-68	86-87	(e)
SO2-MW7	11/11/12	LSCE, CM	12	96.5	65-75	80-90	63-76, 78-93 [93]	0-58	(B) 58-59, (FS) 59-63	76-78	(e)
SO2-MW8	11/11/12	LSCE, WA	12	101.5	20-30	70-85	18-31, 68-85 [85]	0-15	(FS) 15-18	31-35, 60-68	(d)
Sozinho Jerseys											
SOJ-MW5	10/5/12	LSCE, TA	12	111.5	76-86	95-105	74-87, 93-106 [106]	0-69	(FS) 69-70, (B) 70-74	87-93	(d)
SOJ-MW6	10/5/12	LSCE, CM	12	111.5	75-85	95-105	73-86, 93-105 [105]	0-68	(FS) 68-72, (B) 72-73	86-93	(d)

Drilling and well installation services provided by Cascade Drilling L.P. (C-57 State Contractor License No. 938110).
All wells were constructed with 2-inch inside diameter, Schedule 40 PVC ASTM F-480-88A threaded casing and 0.030-inch screen slot size.
(a) Luhdorff and Scalmanini Consulting Engineers (CM=Casey Meirovitz, PG #9074 as of 2013); JH=Jeanette Hummel, GIT, PG #9087 as of 2013; WA=Wesley Andrews, GIT); supervision provided by Scott Lewis, PG #7876 and (TA)=Till Angermann, PG #7789.
(b) bgs=below ground surface.
(c) FS=fine sand, B=bentonite chips
(d) Above-ground completion with steel-reinforced concrete pad and 8-inch diameter steel monument with lockable steel cover.
(e) Below-ground completion with steel-reinforced concrete pad and flush-mounted traffic valve box with steel lid.
[30] = native fill exends from bracketed number to total borehole depth.

Table 3
Construction Details of Pre-Existing Monitoring Wells
Phase 2 Representative Monitoring Program

CVDRMP Well Name	Previous Well Name	Date Installed	Borehole Diameter (inches)	Borehole Depth (feet, bgs)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Sand Pack (feet, bgs)	Cement Seal (feet, bgs)	Bentonite Seal (feet, bgs)	Casing	Screen Slot Size (inches)	Driller	Drilling Oversight
Central Area													
Diepersloot Ranch													
DIE-MW1	MW-1	08/12/2003	8	120	90-120	120	87-120	0-83	83-87	2"-PVC, flush threaded	0.020	-	EE
DIE-MW2	MW-2	03/12/2003	8	130	100-130	130	98-130	0-95	95-98	2"-PVC, flush threaded	0.020	-	EE
DIE-MW3	MW-3	04/12/2003	8	120	90-120	120	88-120	0-85	85-88	2"-PVC, flush threaded	0.020	-	EE
DIE-MW4	MW-4	26/10/2005	8	118	88-118	118	85-118	0-83	83-85	2"-PVC	0.020	-	BSK
Durrer Dairy													
DUR-MW1	DMW-1	06/03/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW2	DMW-2	06/03/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW3	DMW-3	06/03/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW4	DMW-4	06/04/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW6	DMW-6	06/08/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW7	DMW-7	06/03/1993	8	23	6-20.5	20.5	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW8	DMW-8	06/08/1993	8	23	6.5-21.5	22	6-23	0-4	4-6	2"-PVC, flush threaded	0.010	LW	URS
DUR-MW9	DMW-9	06/02/1993	8	23	6-21	21	4-23	0-2	2-4	2"-PVC, flush threaded	0.010	LW	URS
Genasci Dairy Inc.													
GEN-MW1	GMW-1	06/15/1993	8	28	13-28	28	10-28	0-8	8-10	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW2	GMW-2	06/15/1993	8	27	12-27	27	10-27	0-8	8-10	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW3	GMW-3	06/16/1993	8	26	10-25	25	8-26	0-6	6-8	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW4	GMW-4	06/15/1993	8	29	13-28	28	11-29	0-9	9-11	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW5	GMW-5	06/10/1993	8	28	13-28	28	11-28	0-9	9-11	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW6	GMW-6	06/10/1993	8	30	14-29	29	12-30	0-10	10-12	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW7	GMW-7	06/09/1993	8	30	14-29	29	12-30	0-10	10-12	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW8	GMW-8	06/14/1993	8	30	15-30	30	13-30	0-11	11-13	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW9	GMW-9	06/11/1993	8	27	12-26.5	26.5	10-27	0-8	8-10	2"-PVC, flush threaded	0.010	LW	URS
GEN-MW10	GMW-10	06/11/1993	8	27	12-27	27	10-27	0-8	8-10	2"-PVC, flush threaded	0.010	LW	URS
Troost Dairy													
TRO-MW1	MW-1	Apr-95	8.5	90	60-90	90	58-90	0-55	55-58	3"-PVC	0.020	-	ASA
TRO-MW2	MW-2	12/06/2005	8.5	118	83-113	118	76-113	0-72	72-76	2"-PVC, flush threaded	0.020	TES	URS
TRO-MW3	MW-3	12/05/2005	8.5	120	85-115	120	79-115	0-76	76-79	2"-PVC, flush threaded	0.020	TES	URS
Woods Dairy													
WOO-MW1	MW-1	06/02/2010	8	55	38-53	53.5	36-55	0-34	34-36	2"-PVC, flush threaded	0.010	AWA	DE
WOO-MW2	MW-2	06/02/2010	8	55	38-53	53.5	36-55	0-34	34-36	2"-PVC, flush threaded	0.010	AWA	DE
WOO-MW3	MW-3	06/03/2010	8	60.5	39.5-54.5	55	37.5-60.5	0-36	36-37.5	2"-PVC, flush threaded	0.010	AWA	DE
South Area													
Aukeman Dairy													
AUK-MW1	MW-1	-	-	-	65-90	89.90*	-	-	-	2"-PVC	-	-	-
AUK-MW2	MW-2	-	-	-	70-95	95.67*	-	-	-	2"-PVC	-	-	-
AUK-MW3	MW-3	-	-	-	75-100	98.00*	-	-	-	2"-PVC	-	-	-

Table 3
Construction Details of Pre-Existing Monitoring Wells
Phase 2 Representative Monitoring Program

CVDRMP Well Name	Previous Well Name	Date Installed	Borehole Diameter (inches)	Borehole Depth (feet, bgs)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Sand Pack (feet, bgs)	Cement Seal (feet, bgs)	Bentonite Seal (feet, bgs)	Casing	Screen Slot Size (inches)	Driller	Drilling Oversight
Dairyland Farms													
DLF-MW1	MW-1	Mar-04	9	120	88-120	120	88-120	0-85	85-88	4"-PVC	0.020	CTL	CTL
DLF-MW2	MW-2	Mar-04	9	122	90-122	122	90-122	0-87	87-90	4"-PVC	0.020	CTL	CTL
DLF-MW3	MW-3	Mar-04	9	121	89-121	121	89-121	0-86	86-89	4"-PVC	0.020	CTL	CTL
DLF-MW4A	MW-4A	06/25/2007	6	102	92-102	102	85-102	0-80	80-85	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW4B	MW-4B	06/20/2007	12.25	180	115-140	140	110-145, 160-180	0-105	105-110, 145-160	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW4C	MW-4C	06/20/2007	12.25	180	170-180	180	110-145, 160-180	0-105	105-110, 145-160	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW5A	MW-5A	06/20/2007	6	120	105-120	120	100-120	0-95	95-100	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW5B	MW-5B	06/26/2007	12.25	170	145-155	155	135-170	0-130	130-135	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW5C	MW-5C	06/26/2007	12.25	170	155-165	165	135-170	0-130	130-135	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW6A	MW6A	06/26/2007	6	104	77-102	104	73-104	0-68	68-73	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW6B	MW6B	07/02/2007	12.25	190	105-115	115	95-121, 126-145, 150-190	0-90	90-95, 121-126, 145-150	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW6C	MW6C	07/02/2007	12.25	190	130-140	140	95-121, 126-145, 150-190	0-90	90-95, 121-126, 145-150	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
DLF-MW6D	MW6D	07/02/2007	12.25	190	155-185	185	95-121, 126-145, 150-190	0-90	90-95, 121-126, 145-150	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
Elkhorn Dairy													
ELK-MW1	SW-1D	05/24/2004	-	80	55-80	80	55-80	0-52	52-55	Sch. 40 PVC, 2-in	0.020	-	BSK
ELK-MW2A	#5 ?	05/19/2000	6	38	15-35	35	15-35	-	0-15	Sch. 40 PVC, 2-in	0.020	HSD	-
ELK-MW2B	SW-2D	05/25/2004	-	75	50-75	75	47-75	0-44	44-47	Sch. 40 PVC, 2-in	0.020	-	BSK
ELK-MW3A	#6 ?	05/19/2000	6	37	15-35	35	15-35	-	0-15	Sch. 40 PVC, 2-in	0.020	HSD	-
ELK-MW3B	SW-3D	05/26/2004	-	65	40-65	65	37-65	0-34	34-37	Sch. 40 PVC, 2-in	0.020	-	BSK
ELK-MW4	#7 ?	05/19/2000	6	38	15-35	35	15-35	-	0-15	Sch. 40 PVC, 2-in	0.020	HSD	-
Giacomazzi Dairy													
ZZI-MW1A	MW1A	7/30/2007	6	87	36-46	46	26-47	0-23	23-26, 47-87	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW1B	MW1B	9/20/2007	12.25	140	94-105	105	86-106, 108-140	0-81	81-86, 106-108	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW1C	MW1C	9/20/2007	12.25	140	116-126	126	86-106, 108-141	0-82	81-86, 106-109	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW1D	MW1D	9/20/2007	12.25	140	126-136	136	86-106, 108-142	0-83	81-86, 106-110	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW2A	MW2A	8/22/2007	6	54	35-45	45	25-45	0-20	20-25, 45-54	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW2B	MW2B	8/27/2007	12.25	145	62-72	72	50-75, 85-126, 128-145	0-45	45-50, 75-85, 126-128	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW2C	MW2C	8/27/2007	12.25	145	116-126	126	50-75, 85-126, 128-146	0-46	45-50, 75-85, 126-129	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW2D	MW2D	8/27/2007	12.25	145	130-140	140	50-75, 85-126, 128-147	0-47	45-50, 75-85, 126-130	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW3A	MW3A	8/20/2007	6	32	15-25	25	10-30	0-8	8-10, 30-32	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW3AA	MW3AA	8/20/2007	6	88	70-85	85	60-88	0-58	58-60	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW3B	MW3B	8/31/2007	10.625/8.75	140	116-131	131	108-140	0-104	104-108	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW5A	MW5A	8/22/2007	6	78	62-72	72	55-78	0-53	53-55	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW5B	MW5B	9/8/2007	12.25	135	80-90	90	76-95, 100-135	0-72	72-76, 95-100	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW5C	MW5C	9/8/2007	12.25	135	106-121	121	76-95, 100-136	0-73	72-76, 95-101	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW5D	MW5D	9/8/2007	12.25	135	121-131	131	76-95, 100-137	0-74	72-76, 95-102	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW6A	MW6A	8/27/2007	6	90	67-87	87	58-90	0-53	53-58	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW6B	MW6B	9/6/2007	12.25	140	92-97	97	90-98, 102-114, 117-140	0-85	85-90, 98-102, 114-117	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW6C	MW6C	9/6/2007	12.25	140	105-112	112	90-98, 102-114, 117-141	0-86	85-90, 98-102, 114-118	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW6D	MW6D	9/6/2007	12.25	140	121-136	136	90-98, 102-114, 117-142	0-87	85-90, 98-102, 114-119	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW7A	MW7A	8/24/2007	6	90	74-89	89	66-90	0-61	61-66	Sch. 40 PVC, 2-in	0.030	B&S	KDSA

Table 3
Construction Details of Pre-Existing Monitoring Wells
Phase 2 Representative Monitoring Program

CVDRMP Well Name	Previous Well Name	Date Installed	Borehole Diameter (inches)	Borehole Depth (feet, bgs)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Sand Pack (feet, bgs)	Cement Seal (feet, bgs)	Bentonite Seal (feet, bgs)	Casing	Screen Slot Size (inches)	Driller	Drilling Oversight
ZZI-MW7B	MW7B	8/29/2007	12.25	145	100-110	110	96-114, 118-126, 128-145	0-89	89-96, 114-118, 126-128	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW7C	MW7C	8/29/2007	12.25	145	121-126	126	96-114, 118-126, 128-146	0-90	89-96, 114-118, 126-129	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW7D	MW7D	8/29/2007	12.25	145	130-140	140	96-114, 118-126, 128-147	0-91	89-96, 114-118, 126-130	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW9A	MW9A	9/27/2007	6	74	52-67	67	47-69	0-43	43-47, 69-74	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW9B	MW9B	9/25/2007	12.25	140	78-88	88	75-98, 101-117, 121-140	0-70	70-75, 98-101, 117-121	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW9C	MW9C	9/25/2007	12.25	140	104-114	114	75-98, 101-117, 121-141	0-71	70-75, 98-101, 117-122	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
ZZI-MW9D	MW9D	9/25/2007	12.25	140	124-134	134	75-98, 101-117, 121-142	0-72	70-75, 98-101, 117-123	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
Holstein Farms Dairy													
HOL-MW1	MW-1	05/19/2005	8.25	140	109-139	139	104-140	0-101	101-104	2"-PVC	0.020	BSK	BSK
HOL-MW2	MW-2	05/23/2005	8.25	140	110-140	140	106-140	0-103	103-106	2"-PVC	0.020	BSK	BSK
HOL-MW3	MW-3	05/24/2005	8.25	136	106-136	136	101-136	0-98	98-101	2"-PVC	0.020	BSK	BSK
Hynes Dairy													
HYN-MW3	MW-3	12/09/2006	9	134	98 - 133	133	94 - 133	0 - 90	90 - 94	2"-PVC	0.020	TES	TES
HYN-MW4	MW-4	12/07/2006	9	135	96 - 131	131	94 - 131	0 - 91	91 - 94	2"-PVC	0.020	TES	TES
HYN-MW5	MW-5	12/05/2006	9	135	99 - 134	134	96 - 134	0 - 92	92 - 96	2"-PVC	0.020	TES	TES
J & A Dairy													
JAD-MW1	MW-1	Jan-04	-	69	49-69	69	47-69	0-47	-	2"-PVC	-	-	TL
JAD-MW2	MW-2	Jan-04	-	70	50-70	70	46-70	0-46	-	2"-PVC	-	-	TL
JAD-MW3	MW-3	Jan-04	-	68	48-68	68	46-68	0-46	-	2"-PVC	-	-	TL
Longfellow Farming Co.													
LON-MW1A	MW-1A	07/17/2007	6	86	64-84	84	60-86	0-55	55-60	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW1B	MW-1B	08/15/2007	12.25	140	93-113	113	90-115, 120-140	0-85	85-90, 115-120	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW1C	MW-1C	08/15/2007	12.25	140	123-138	138	90-115, 120-140	0-85	85-90, 115-120	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW2A	MW-2A	06/25/2007	6	90	65-90	90	60-90	0-55	55-60	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW2B	MW-2B	06/16/2007	12.25	145	96-106	106	92-109, 115-145	0-85	88-92, 109-115	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW2C	MW-2C	06/16/2007	12.25	145	115-125	125	92-109, 115-145	0-85	88-92, 109-115	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW3A	MW-3A	07/16/2007	6	85	65-85	85	60-85	0-55	55-60	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW3B	MW-3B	08/17/2007	12.25	140	115-130	130	110-140	0-105	105-110	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW3C	MW-3C	08/17/2007	12.25	140	130-140	140	110-140	0-105	105-110	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW4A	MW-4A	07/05/2007	6	90	60-90	90	55-90	0-50	50-55	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW4B	MW-4B	07/11/2007	12.25	150	105-115	115	100-115, 120-150	0-95	95-100, 115-120	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW4C	MW-4C	07/11/2007	12.25	150	130-140	140	100-115, 120-150	0-95	95-100, 115-120	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW4D	MW-4D	07/11/2007	12.25	150	140-150	150	100-115, 120-150	0-95	95-100, 115-120	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW5A	MW-5A	07/24/2007	6	96	66-96	96	56-96	0-51	51-56	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW5B	MW-5B	09/14/2007	10.625	135	100-110	110	93-114, 116-135	0-88	88-93, 114-116	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW5C	MW-5C	09/14/2007	10.625	135	118-128	128	93-114, 116-135	0-88	88-93, 114-116	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW6A	MW-6A	07/25/2007	6	96	85-89	95	75-96	0-70	70-75	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW6B	MW-6B	09/18/2007	10.625	135	95-110	110	90-112, 120-135	0-85	85-90, 112-116	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW6C	MW-6C	09/18/2007	10.625	135	120-130	130	90-112, 120-135	0-85	85-90, 112-116	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW7A	MW-7A	08/28/2007	6	72	42-52	55	30-55, 57-67	0-29	29-30, 55-57, 67-72	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW7B	MW-7B	09/12/2007	12.25	135	68-78	78	65-83, 86-100, 104-135	0-60	60-65, 83-86, 100-104	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
LON-MW7C	MW-7C	09/12/2007	12.25	135	88-98	98	65-83, 86-100, 104-135	0-60	60-65, 83-86, 100-104	Sch. 40 PVC, 2-in	0.030	B&S	KDSA

Table 3
Construction Details of Pre-Existing Monitoring Wells
Phase 2 Representative Monitoring Program

CVDRMP Well Name	Previous Well Name	Date Installed	Borehole Diameter (inches)	Borehole Depth (feet, bgs)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Sand Pack (feet, bgs)	Cement Seal (feet, bgs)	Bentonite Seal (feet, bgs)	Casing	Screen Slot Size (inches)	Driller	Drilling Oversight
LON-MW7D	MW-7D	09/12/2007	12.25	135	108-128	128	65-83, 86-100, 104-135	0-60	60-65, 83-86, 100-104	Sch. 40 PVC, 2-in	0.030	B&S	KDSA
Manuel and Alda Lawrence Dairy													
MAL-MW1	MW-1	07/15/2005	8	24	9-24	24	7-24	0-5	5-7	2"-PVC	0.020	CTL	WZI Inc.
MAL-MW2	MW-2	07/21/2005	8	25	10-25	25	8-25	0-6	6-8	2"-PVC	0.020	CTL	WZI Inc.
MAL-MW3	MW-3	07/18/2005	8	19	4-19	19	3-19	0-2	2-3	2"-PVC	0.020	CTL	WZI Inc.
MAL-MW4	MW-4	07/18/2005	8	22	7-22	22	5-22	0-3	3-5	2"-PVC	0.020	CTL	WZI Inc.
MAL-MW5	MW-5	07/21/2005	8	24	9-24	24	7-24	0-5	5-7	2"-PVC	0.020	CTL	WZI Inc.
MAL-MW6	MW-6	07/21/2005	8	23	8-23	23	6-23	0-4	4-6	2"-PVC	0.020	CTL	WZI Inc.
Maple Avenue Dairy													
MAP-MW8	MW-8	Oct-02	-	-	65.0-95.0	101.68	-	-	-	2"-PVC	0.020	-	BSK
MAP-MW9	MW-9	Oct-02	-	-	65.0-95.0	96.90	-	-	-	2"-PVC	0.020	-	BSK
MAP-MW10	MW-10	-	-	-	-	107.30	-	-	-	2"-PVC	0.020	-	-
Richmar Farms Dairy													
RIC-MW1	MW-1	10/14/2002	8	-	24-44	44	-	-	-	2"-PVC	-	Galvan	SEI
RIC-MW2	MW-2	10/16/2002	8	-	4-13	13	-	-	-	2"-PVC	-	Galvan	SEI
RIC-MW3	MW-3	10/16/2002	8	-	28-58	58	-	-	-	2"-PVC	-	Galvan	SEI
RIC-MW4	MW-4	10/17/2002	8	-	3-13	13	-	-	-	2"-PVC	-	Galvan	SEI
RIC-MW5	MW-5	10/17/2002	8	-	28-58	58	-	-	-	2"-PVC	-	Galvan	SEI
RIC-MW6	MW-6	10/17/2002	8	-	5-15	15	-	-	-	2"-PVC	-	Galvan	SEI
Sierra View Dairy													
SIE-MW1	MW-1	11/23/2004	-	124	84-124	124	82-124	0-82	-	2"-PVC	-	-	CTL
SIE-MW2	MW-2	05/13/2003	-	108	68-108	108	67-108	0-67	-	2"-PVC	-	-	CTL
SIE-MW3	MW-3	11/19/2004	-	123	83-123	123	81-123	0-81	-	2"-PVC	-	-	CTL
SIE-MW4	MW-4	04/06/2006	12.25	134	89-129	129	80-134	0-74	74-80	4"-PVC	0.030	HSD	KDSA
Sozinho Dairy No. 2													
SO2-MW1	MW-1	02/26/2002	8	75.0	43-73	73	38-73	0-34	34-38	2"-PVC	0.020	BSK	P & P
SO2-MW2	MW-2	02/28/2002	8	75.0	42-72	72	37-75	0-33	33-37	2"-PVC	0.020	BSK	P & P
SO2-MW3	MW-3	02/27/2002	8	75.0	44.5-74.5	74.5	39.5-75	0-35.5	35.5-39.5	2"-PVC	0.020	BSK	P & P
SO2-MW4	MW-4	02/27/2002	8	75.0	43-73	73	36-73	0-32	32-36	2"-PVC	0.020	BSK	P & P
Sozinho Jerseys													
SOJ-MW1	MW-1	02/26/2002	4.25	77.0	46.0-75.85	76.43	43.5-77.0	0-39.5	39.5-43.5	2"-PVC	0.020	SC	ASA
SOJ-MW2	MW-2	02/28/2002	4.25	73.5	38.5-68.4	72.93	40-73.5	0-36	36.0-40.0	2"-PVC	0.020	SC	ASA
SOJ-MW3	MW-3	02/27/2002	4.25	72.5	41.4-71.25	71.83	38.9-72.5	0-34.10	34.10-38.9	2"-PVC	0.020	SC	ASA
SOJ-MW4	MW-4	02/27/2002	4.25	73.0	42.0-71.9	72.46	39.5-73	0-35.5	35.5-39.5	2"-PVC	0.020	SC	ASA
Zonneveld Dairy Complex													
ZON-MW1A	MW-1 (a)	-	-	-	9.5-14.5	14.25	-	-	-	2"-PVC, flush threaded	0.020	-	BSK
ZON-MW1B	MW-1 (b)	-	-	-	-	38.60*	-	-	-	2"-PVC, flush threaded	0.020	-	BSK
ZON-MW1C	MW-1 (c)	-	-	-	72.5-107.5	108.80*	-	-	-	2"-PVC, flush threaded	0.020	-	BSK
ZON-MW2A	MW-2 (a)	Jan-03	10.75	142	60-90	94	57-91	0-54	54-57, 91-123, 136-142	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW2B	MW-2 (b)	Jan-03	10.75	142	125-135	139	123-136	0-54	54-57, 91-123, 136-142	2"-PVC, flush threaded	0.030	B&S	BSK

Table 3
Construction Details of Pre-Existing Monitoring Wells
Phase 2 Representative Monitoring Program

CVDRMP Well Name	Previous Well Name	Date Installed	Borehole Diameter (inches)	Borehole Depth (feet, bgs)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Sand Pack (feet, bgs)	Cement Seal (feet, bgs)	Bentonite Seal (feet, bgs)	Casing	Screen Slot Size (inches)	Driller	Drilling Oversight
ZON-MW3A	MW-3 (a)	Jan-03	10.75	141	67-97	100	64-99	0-60	60-64, 99-115, 132-141	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW3B	MW-3 (b)	Jan-03	10.75	141	117-132	137	115-132	0-60	60-64, 99-115, 132-141	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW4A	MW-4 (a)	Jan-03	10.75	141	60-90	95	59-96	0-54	54-59, 96-124	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW4B	MW-4 (b)	Jan-03	10.75	141	125-135	140	124-141	0-54	54-59, 96-124	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW5A	MW-5 (a)	Jan-03	10.75	140.5	65-95	98	63-97	0-62	62-63, 97-124, 138-140.5	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW5B	MW-5 (b)	Jan-03	10.75	140.5	128-138	140.5	124-138	0-62	62-63, 97-124, 138-140.5	2"-PVC, flush threaded	0.030	B&S	BSK
ZON-MW7	MW-7	-	-	-	88-108	111.9	-	-	-	2"-PVC, flush threaded	0.020	B&S	BSK

Well construction information was compiled from various sources; as-built well construction drawings were given preference in cases of disagreement between documents.
Shading indicates nested wells.
* Measurement obtained after completion of well 2013 development.

ASA = Assosciated Soils Analysis, Inc.
AWA = All Well Abandonment
B&S = Bradley and Sons
CTL = Consolidated Testing Laboratories Inc.
DE = Dunn Environmental
EE = Erwin Engineering
HSD = Haynes & Sons Drilling
KDSA = Kenneth D Schmidt and Assosciates
LW = Layne Western
P & P = Provost and Pritchard
SC = Scott Broeck
SEI = Soils Engineering Inc.
TES = Technicon Engineerng Services, Inc.
TL = Twining Laboratories Inc
URS = URS Corporation

Table 4
Summary of Selected Well Development Notes
Central Valley Dairy Representative Monitoring Program

CVDRMP Well Name (1)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Date of Development	DTW Before Well Development (feet)	Initial Development: Sediment Removed from Well (feet)	Initial Development: Water Removed from Well (gallons)	Polishing: Water Removed from Well (gallons)	Final Measurements: pH	Final Measurements: EC (µS/cm)	Final Measurements: T (°C)	Final Measurements: ORP (mV/cm)	Final Measurements: Turb. (NTU)	Final Measurements: Color
North Area													
Brentwood Farms													
BRE-MW1s	15-30	30	1/10/2013	17.75	2.83	75	20	7.79	318	19.1	218	45	clear
BRE-MW1d	85-100	100	1/10/2013	53.90	10.90	80	20	6.91	309	18.3	256	33	light brown
BRE-MW2s	95-105	105	1/10/2013	64.51	5.03	85	20	7.58	322	19.5	208	27	clear
BRE-MW2d	116-126	126	1/10/2013	64.95	1.63	85	20	7.28	319	19.4	213	24	light brown
BRE-MW3s	88-98	98	1/10/2013	51.82	2.90	80	20	8.36	302	19.1	248	30	clear
BRE-MW3d	103-108	108	1/10/2013	48.80	1.64	60	20	7.35	290	19.2	258	22	clear
Creekside Dairy													
CRE-MW1s	11-16	16	1/9/2013	0.75	2.00	10	5	6.48	765	15.2	256	145	clear
CRE-MW1d	95-120	120	1/9/2013	84.16	2.50	60	15	6.26	332	17.2	249	130	clear
CRE-MW2s	10-20	20	1/9/2013	2.00	2.07	15	5	7.92	542	16.3	207	240	clear
CRE-MW2d	27-37	37	1/9/2013	2.92	1.67	35	10	7.67	554	16.7	229	880	clear
CRE-MW3s	11-16	16	1/9/2013	2.40	1.75	30	8	6.76	1,426	16.9	239	360	clear
CRE-MW3d	38-58	58	1/9/2013	35.10	7.35	60	10	6.76	1,051	16.5	228	570	clear
MTSJ Dairy													
MTS-MW1	60-80	80	1/8/2013	55.16	0.08	50	20	7.62	597	17.0	171	115	clear
MTS-MW2s	13-28	28	1/8/2013	dry	0.00	0	0	na	na	na	na	na	na
MTS-MW2d	53-68	68	1/8/2013	49.81	4.89	60	20	7.55	663	14.1	170	95	clear
MTS-MW3s	10-25	25	1/8/2013	dry	0.00	0	0	na	na	na	na	na	na
MTS-MW3d	55-70	70	1/8/2013	41.56	5.07	50	20	7.13	818	16.7	197	55	clear

Table 4
Summary of Selected Well Development Notes
Central Valley Dairy Representative Monitoring Program

CVDRMP Well Name (1)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Date of Development	DTW Before Well Development (feet)	Initial Development: Sediment Removed from Well (feet)	Initial Development: Water Removed from Well (gallons)	Polishing: Water Removed from Well (gallons)	Final Measurements: pH	Final Measurements: EC (µS/cm)	Final Measurements: T (°C)	Final Measurements: ORP (mV/cm)	Final Measurements: Turb. (NTU)	Final Measurements: Color
Central Area													
Diepersloot Ranch													
DIE-MW1	90-120	120	1/27/2013	102.31	0.90	15	10	7.40	1,878	17.0	134	455	clear
DIE-MW2	100-130	130	1/27/2013	104.88	0.10	15	10	7.03	1,003	12.1	219	230	clear
DIE-MW3	90-120	120	1/27/2013	100.87	0.10	15	10	7.02	1,179	15.6	251	170	clear
DIE-MW4	88-118	118	1/27/2013	98.20	0.77	15	10	7.81	1,335	15.4	154	780	clear
Durrer Dairy													
DUR-MW1	6-21	21	1/19/2013	12.04	1.91	50	20	7.30	2,318	20.3	221	10	clear
DUR-MW2	6-21	21	1/19/2013	14.02	1.93	0	25	7.25	4,997	19.1	131	6	clear
DUR-MW3	6-21	21	1/19/2013	10.30	13.13	20	15	7.38	4,039	19.6	113	2	clear
DUR-MW4	6-21	21	1/19/2013	10.97	1.70	0	15	7.14	4,684	18.9	140	2	clear
DUR-MW6	6-21	21	1/19/2013	8.58	2.52	12	25	7.64	1,480	18.9	140	2	clear
DUR-MW7	6-20.5	20.5	1/19/2013	12.60	2.07	30	25	7.31	3,006	18.1	124	17	clear
DUR-MW8	6.5-21.5	22	1/19/2013	11.85	1.88	15	15	7.84	914	19.0	175	26	clear
DUR-MW9	6-21	21	1/19/2013	10.39	2.13	40	20	7.49	1,002	19.3	174	32	clear
DUR-MW10s	5-20	20	3/21/2013	14.80	1.27	20	15	7.90	2,926	19.7	184	15	clear
DUR-MW10d	30-40	40	3/21/2013	14.77	3.92	35	20	8.04	2,810	19.5	174	46	clear

Table 4
Summary of Selected Well Development Notes
Central Valley Dairy Representative Monitoring Program

CVDRMP Well Name (1)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Date of Development	DTW Before Well Development (feet)	Initial Development: Sediment Removed from Well (feet)	Initial Development: Water Removed from Well (gallons)	Polishing: Water Removed from Well (gallons)	Final Measurements: pH	Final Measurements: EC (µS/cm)	Final Measurements: T (°C)	Final Measurements: ORP (mV/cm)	Final Measurements: Turb. (NTU)	Final Measurements: Color
Genasci Dairy Inc.													
GEN-MW1	13-28	28	1/21-22/2013	8.10	8.49	30	20	6.87	3,157	21.1	-43	3	clear
GEN-MW2	12-27	27	1/21-22/2013	8.64	12.87	20	20	7.20	2,180	19.8	26	4	clear
GEN-MW3	10-25	25	1/21-22/2013	11.04	4.12	20	20	7.04	6,058	19.8	158	2	clear
GEN-MW4	13-28	28											na
GEN-MW5	13-28	28	1/21-22/2013	12.15	4.05	20	20	7.20	2,462	19.6	70	4	clear
GEN-MW6	14-29	29	1/21-22/2013	12.40	2.05	25	20	7.91	1,070	20.2	126	18	clear
GEN-MW7	14-29	29	1/21-22/2013	13.42	1.76	30	20	7.15	1,116	19.6	188	17	clear
GEN-MW8	15-30	30	1/21-22/2013	11.58	2.41	15	20	7.25	2,174	19.7	75	28	clear
GEN-MW9	12-26.5	26.5	1/21-22/2013	7.56	2.21	40	20	7.07	2,132	16.9	126	26	clear
GEN-MW10	12-27	27	1/21-22/2013	13.15	1.52	20	20	7.38	2,040	19.7	-2	3	clear
GEN-MW11s	10-25	25	1/21-22/2013	12.59	4.75	30	20	7.63	1,395	19.1	122	11	clear
GEN-MW11d	30-40	40	1/21-22/2013	12.55	12.21	25	20	7.85	1,420	18.8	136	9	clear
GEN-MW12s	10-20	20	1/21-22/2013	12.78	3.47	35	20	7.69	1,475	19.3	140	22	clear
GEN-MW12d	25-35	35	1/21-22/2013	13.00	11.69	35	20	7.93	1,399	18.5	137	28	clear
Troost Dairy													
TRO-MW1	60-90	90	1/27/2013	79.87	0.22	15	15	7.38	919	15.8	139	67	clear
TRO-MW2	83-113	118	1/27/2013	95.80	0.57	15	15	7.35	1,198	16.9	146	91	clear
TRO-MW3	85-115	120	1/27/2013	85.62	0.36	15	15	7.74	817	16.3	119	72	clear
Woods Dairy													
WOO-MW1	38-53	53.5	1/18/2013	44.40	1.77	15	10	7.38	1,225	17.1	156	47	clear
WOO-MW2	38-53	53.5	1/18/2013	42.55	1.48	15	30	7.52	1,200	17.3	152	40	clear
WOO-MW3	39.5-54.5	55	1/18/2013	43.43	0.01	15	30	7.01	1,501	17.1	188	21	clear

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Central Valley Dairy Representative Monitoring Program

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South Area													
Aukeman Dairy													
AUK-MW1	65-90	~90	3/1/2013	60.70	6.90	20	15	6.85	1,614	18.9	160	794	light brown
AUK-MW2	70-95	~95	3/1/2013	65.72	3.67	20	15	7.11	1,516	19.2	126	346	clear
AUK-MW3	75-100	~100	3/1/2013	64.22	1.50	30	15	6.91	1,640	19.4	151	764	light brown
Dairyland Farms													
DLF-MW1	88-120	120	3/1/2013	dry	0.00	0	0	na	na	na	na	na	na
DLF-MW2	90-122	122	3/1/2013	dry	0.00	0	0	na	na	na	na	na	na
DLF-MW3	89-121	121	3/1/2013	dry	0.00	0	0	na	na	na	na	na	na
DLF-MW4A	92-102	102	3/1/2013	dry	0.27	0	0	na	na	na	na	na	na
DLF-MW4B	115-140	140	3/1/2013	dry	0.03	0	0	na	na	na	na	na	na
DLF-MW4C	170-180	180	3/1/2013	148.62	1.45	35	25	7.84	636	19.1	35	397	clear
DLF-MW5A	105-120	120	3/1/2013	118.10	0.00	0	0	na	na	na	na	na	na
DLF-MW5B	145-155	155	3/1/2013	145.18	0.15	40	20	7.48	681	17.4	154	242	light brown
DLF-MW5C	155-165	165	3/1/2013	145.10	0.00	45	20	7.41	646	18.4	144	301	light brown
DLF-MW6A	77-102	104	3/1/2013	95.42	5.05	0	0	na	na	na	na	na	na
DLF-MW6B	105-115	115	3/1/2013	99.16	0.05	20	20	7.30	1,218	20.1	164	28.9	clear
DLF-MW6C	130-140	140	3/1/2013	105.99	0.00	40	20	7.16	1,232	19.7	169	84.1	clear
DLF-MW6D	155-185	185	3/1/2013	106.72	0.30	50	20	6.91	1,233	19.6	172	504	light brown
Elkhorn Dairy													
ELK-MW1	55-80	80	2/9/2013	46.64	1.59	20	20	7.42	1,887	17.2	148	516	brown
ELK-MW2A	15-35	35	2/9/2013	dry	0.18	0	0	na	na	na	na	na	na
ELK-MW2B	50-75	75	2/9/2013	48.70	3.10	20	20	7.47	1,687	18.2	138	751	light brown
ELK-MW3A	15-35	35	2/9/2013	dry	0.55	0	0	na	na	na	na	na	na
ELK-MW3B	40-65	65	2/9/2013	41.56	0.20	15	20	8.04	1,807	19.8	92	827	clear
ELK-MW4	15-35	35	2/9/2013	dry	0.10	0	0	na	na	na	na	na	na

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Giacomazzi Dairy													
ZZI-MW1A	36-46	46	3/8-10/2013	dry	0.00	0	0	na	na	na	na	na	na
ZZI-MW1B	94-105	105	3/8-10/2013	101.70	0.25	10	10	7.55	715	17.8	161	4.11	clear
ZZI-MW1C	116-126	126	3/8-10/2013	101.72	0.73	20	20	8.13	478	18.8	130	18.32	clear
ZZI-MW1D	126-136	136	3/8-10/2013	101.68	0.55	25	20	8.20	505	21.0	116	24.80	clear
ZZI-MW2A	35-45	45	3/8-10/2013	40.40	0.80	10	20	6.41	2,907	20.8	143	201.00	clear
ZZI-MW2B	62-72	72	3/8-10/2013	dry	0.66	0	0	na	na	na	na	na	na
ZZI-MW2C	116-126	126	3/8-10/2013	100.34	1.72	20	20	7.40	1,056	19.6	129	50.60	clear
ZZI-MW2D	130-140	140	3/8-10/2013	100.29	1.62	35	20	8.03	397	18.7	120	268	clear
ZZI-MW3A	15-25	25	3/8-10/2013	dry	2.03	0	0	na	na	na	na	na	na
ZZI-MW3AA	70-85	85	3/8-10/2013	25.03	0.56	5	3	7.04	4,082	18.7	126	562	grayish
ZZI-MW3B	116-131	131	3/8-10/2013	104.29	0.74	35	20	6.93	1,219	19.1	145	32.6	clear
ZZI-MW5A	62-72	72	3/8-10/2013	71.42	0.18	0	0	na	na	na	na	na	na
ZZI-MW5B	80-90	90	3/8-10/2013	dry	0.35	0	0	na	na	na	na	na	na
ZZI-MW5C	106-121	121	3/8-10/2013	107.32	0.85	25	20	7.31	2,035	19.6	152	3.3	clear
ZZI-MW5D	121-131	131	3/8-10/2013	107.42	1.08	25	20	7.69	2,026	20.0	138	32.9	clear
ZZI-MW6A	67-87	87	3/8-10/2013	87.80	0.14	0	0	na	na	na	na	na	na
ZZI-MW6B	92-97	97	3/8-10/2013	dry	0.61	0	0	na	na	na	na	na	na
ZZI-MW6C	105-112	112	3/8-10/2013	108.13	0.01	12	20	7.33	1,948	17.6	172	13.7	clear
ZZI-MW6D	121-136	136	3/8-10/2013	110.16	0.00	40	20	7.30	1,814	17.4	176	240	clear
ZZI-MW7A	74-89	89	3/8-10/2013	dry	0.24	0	0	na	na	na	na	na	na
ZZI-MW7B	100-110	110	3/8-10/2013	103.14	0.54	15	20	7.52	1,743	18.6	145	4.1	clear
ZZI-MW7C	121-126	126	3/8-10/2013	103.65	0.02	25	20	7.39	1,520	18..7	144	305	cloudy
ZZI-MW7D	130-140	140	3/8-10/2013	103.70	0.00	50	20	7.18	1,481	18.4	157	317	clear
ZZI-MW9A	52-67	67	3/8-10/2013	dry	0.22	0	0	na	na	na	na	na	na
ZZI-MW9B	78-88	88	3/8-10/2013	dry	0.18	0	0	na	na	na	na	na	na
ZZI-MW9C	104-114	114	3/8-10/2013	97.73	0.84	15	20	7.67	1,153	18.7	116	13.0	clear
ZZI-MW9D	124-134	134	3/8-10/2013	97.98	1.38	25	20	8.04	197	18.9	101	399	light brown

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Holstein Farms Dairy													
HOL-MW1	109-139	139	3/2/2013	117.77	7.92	20	20	7.86	815	22.9	142	351	light brown
HOL-MW2	110-140	140	3/2/2013	117.30	2.38	20	20	7.22	1,022	21.0	145	149	light brown
HOL-MW3	106-136	136	3/2/2013	117.28	2.23	20	20	7.16	1,315	21.1	175	434	light brown
Hynes Dairy													
HYN-MW3	98 - 133	133	3/2/2013	130.22	1.10	20	20	6.94	1,556	19.6	171	220	light brown
HYN-MW4	96 - 131	131	3/2/2013	128.92	1.95	20	20	7.53	530	19.5	162	240	clear
HYN-MW5	99 - 134	134	3/2/2013	126.98	1.35	20	20	7.85	321	18.8	161	202	light brown
J & A Dairy													
JAD-MW1	49-69	69	2/1-2/2013	54.70	2.60	10	25	7.58	1,144	18.7	119	548	light brown
JAD-MW2	50-70	70	2/1-2/2013	60.40	0.35	10	15	7.13	1,572	18.9	155	587	brown
JAD-MW3	48-68	68	2/1-2/2013	45.49	2.06	20	20	7.40	1,356	18.0	125	188	brown
JAD-MW4s	50-60	60	2/1-2/2013	53.15	2.48	15	15	7.74	953	17.6	115	350	brown
JAD-MW4d	65-75	75	2/1-2/2013	53.12	2.06	15	15	7.46	915	17.6	142	124	brown
JAD-MW5s	70-80	80	2/1-2/2013	59.85	7.00	0	0	na	na	na	na	na	na
JAD-MW5d	90-105	105	2/1-2/2013	59.72	0.00	0	0	- - - - - - - - blockage at ~63 feet - - - - - - -					
JAD-MW6s	55-70	70	2/1-2/2013	60.12	3.95	12	7	8.79	739	17.9	124	430	brown
JAD-MW6d	78-93	93	2/1-2/2013	60.90	3.45	15	15	7.82	1,244	18.0	138	528	brown
JAD-MW7s	50-65	65	2/1-2/2013	61.60	0.37	15	15	7.82	1,462	18.1	129	549	brown
JAD-MW7d	70-80	80	2/1-2/2013	61.80	1.91	15	15	7.64	1,383	18.1	144	578	brown

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Longfellow Farming Co.													
LON-MW1A	64-84	84	3/1-4/2013	dry	na	0	0	na	na	na	na	na	na
LON-MW1B	93-113	113	3/1-4/2013	95.83	0.12	20	20	7.70	1,116	20.0	29	114	clear
LON-MW1C	123-138	138	3/1-4/2013	96.12	0.42	35	20	7.28	985	20.4	129	40	clear
LON-MW2A	65-90	90	3/1-4/2013	dry	1.92	0	0	na	na	na	na	na	na
LON-MW2B	96-106	106	3/1-4/2013	95.97	1.00	20	20	6.62	2,153	21.3	137	4.1	clear
LON-MW2C	115-125	125	3/1-4/2013	96.06	0.46	35	20	7.32	1,598	20.4	133	8.7	clear
LON-MW3A	65-85	85	3/1-4/2013	dry	0.22	0	0	na	na	na	na	na	na
LON-MW3B	115-130	130	3/1-4/2013	96.78	0.00	20	20	7.76	961	22.4	68	108	clear
LON-MW3C	130-140	140	3/1-4/2013	96.65	0.20	40	20	7.48	899	20.8	38	73	clear
LON-MW4A	60-90	90	3/1-4/2013	85.96	0.77	0	0	na	na	na	na	na	na
LON-MW4B	105-115	115	3/1-4/2013	96.13	1.08	10	20	6.78	1,944	18.6	151	57	clear
LON-MW4C	130-140	140	3/1-4/2013	96.90	1.70	30	20	6.72	2,028	19.5	141	70	clear
LON-MW4D	140-150	150	3/1-4/2013	96.88	0.94	50	20	7.51	2,427	20.2	134	372	light brown
LON-MW5A	66-96	96	3/1-4/2013	dry	0.25	0	0	na	na	na	na	na	na
LON-MW5B	100-110	110	3/1-4/2013	102.30	0.02	15	20	7.20	2,393	18.9	192	37	clear
LON-MW5C	118-128	128	3/1-4/2013	102.71	0.00	20	20	7.71	2,304	19.5	180	438	light brown
LON-MW6A	85-89	95	3/1-4/2013	dry	0.89	0	0	na	na	na	na	na	na
LON-MW6B	95-110	110	3/1-4/2013	106.08	0.03	15	20	7.05	1,893	20.7	135	665	light brown
LON-MW6C	120-130	130	3/1-4/2013	106.03	0.45	20	20	6.82	1,599	21.1	139	684	light brown
LON-MW7A	42-52	55	3/1-4/2013	dry	3.05	0	0	na	na	na	na	na	na
LON-MW7B	68-78	78	3/1-4/2013	78.38	0.03	0	0	na	na	na	na	na	na
LON-MW7C	88-98	98	3/1-4/2013	96.54	0.27	30	0	na	na	na	na	na	na
LON-MW7D	108-128	128	3/1-4/2013	97.16	3.20	40	20	6.66	2,046	21.0	133	345	light brown

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Machado Dairy													
ADO-MW1s	82-92	92	2/4/2013	78.80	0.6	35	15	7.78	1,021	19.9	138	129	light brown
ADO-MW1d	98-108	108	2/4/2013	78.42	2.1	55	15	7.95	1,033	19.9	128	479	brown
ADO-MW2s	80.5-90.5	90.5	2/4/2013	78.78	1.1	40	15	8.00	1,086	18.0	92	580	brown
ADO-MW2d	100-110	110	2/4/2013	78.46	3.23	60	15	7.75	1,154	17.9	112	422	brown
Manuel and Alda Lawrence Dairy													
MAL-MW1	9-24	24	2/23-24/2013	15.60	4.63	25	20	8.58	1,746	18.7	100	30	clear
MAL-MW2	10-25	25	2/23-24/2013	12.51	0.01	20	20	7.69	2,395	20.3	182	37	light brown
MAL-MW3	4-19	19	2/23-24/2013	9.94	0.01	10	10	7.88	2,812	19.5	208	519	clear
MAL-MW4	7-22	22	2/23-24/2013	12.34	0.10	15	20	8.23	1,659	21.2	148	52	light brown
MAL-MW5	9-24	24	2/23-24/2013	10.62	0.00	15	20	7.74	4,123	20.2	219	237	clear
MAL-MW6	8-23	23	2/23-24/2013	8.84	0.01	15	20	7.47	2,112	19.9	143	76	clear
MAL-MW7	10-30	30	2/23-24/2013	8.06	5.67	50	20	7.53	1,498	21.0	145	598	light brown
MAL-MW8	20-30	30	2/23-24/2013	5.00	4.15	45	20	9.40	1,755	20.1	99	567	light brown
Maple Avenue Dairy													
MAP-MW8	65.0-95.0	101.68	2/28/2013	94.30	0.09	5	3	8.30	998	20.9	111	470	light brown
MAP-MW9	65.0-95.0	96.90	2/28/2013	dry	0.00	0	0	na	na	na	na	na	na
MAP-MW10	-	107.30	2/28/2013	88.00	2.07	15	20	7.63	1,457	18.9	152	50	clear

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Richmar Farms Dairy													
RIC-MW1	24-44	44	2/2-3/2013	11.62	4.36	50	25	8.25	1,643	20.4	95	19	clear
RIC-MW2	4-13	13	2/2-3/2013	dry	0.00	0	0	na	na	na	na	na	na
RIC-MW3	28-58	58	2/2-3/2013	7.18	4.70	20	25	7.47	2,137	19.7	7	30	clear
RIC-MW4	3-13	13	2/2-3/2013	dry	0.00	0	0	na	na	na	na	na	na
RIC-MW5	28-58	58	2/2-3/2013	11.11	5.45	15	25	8.33	546	19.0	33	168	clear
RIC-MW6	5-15	15	2/2-3/2013	9.95	0.00	0	0	na	na	na	na	na	na
RIC-MW7s	10-25	25	2/2-3/2013	11.78	1.76	30	30	8.12	1,592	21.8	88	368	light brown
RIC-MW7d	30-45	45	2/2-3/2013	11.80	4.40	20	25	8.16	1,258	21.6	89	353	brown
RIC-MW8s	17-27	27	2/2-3/2013	12.15	2.41	15	25	9.70	844	21.1	58	591	brown
RIC-MW8d	31-46	46	2/2-3/2013	12.20	3.26	10	25	8.29	1,340	20.3	69	106	brown
RIC-MW9s	10-25	25	2/2-3/2013	9.77	2.21	40	25	8.20	1,043	21.9	94	293	brown
RIC-MW9d	30-45	45	2/2-3/2013	10.20	2.27	15	25	8.11	1,265	20.9	94	76	clear
Sierra View Dairy													
SIE-MW1	84-124	124	2/2/2013	89.69	4.48	30	30	7.64	1,052	18.1	159	527	brown
SIE-MW2	68-108	108	2/2/2013	102.30	0.90	0	- - - - large amount of sand keeps coming into the well - - -						
SIE-MW3	83-123	123	2/2/2013	104.42	2.10	25	25	8.11	771	18.9	109	593	brown
SIE-MW4	89-129	129	2/2/2013	109.38	0.00	20	25	6.94	1,013	20.3	222	80	light brown

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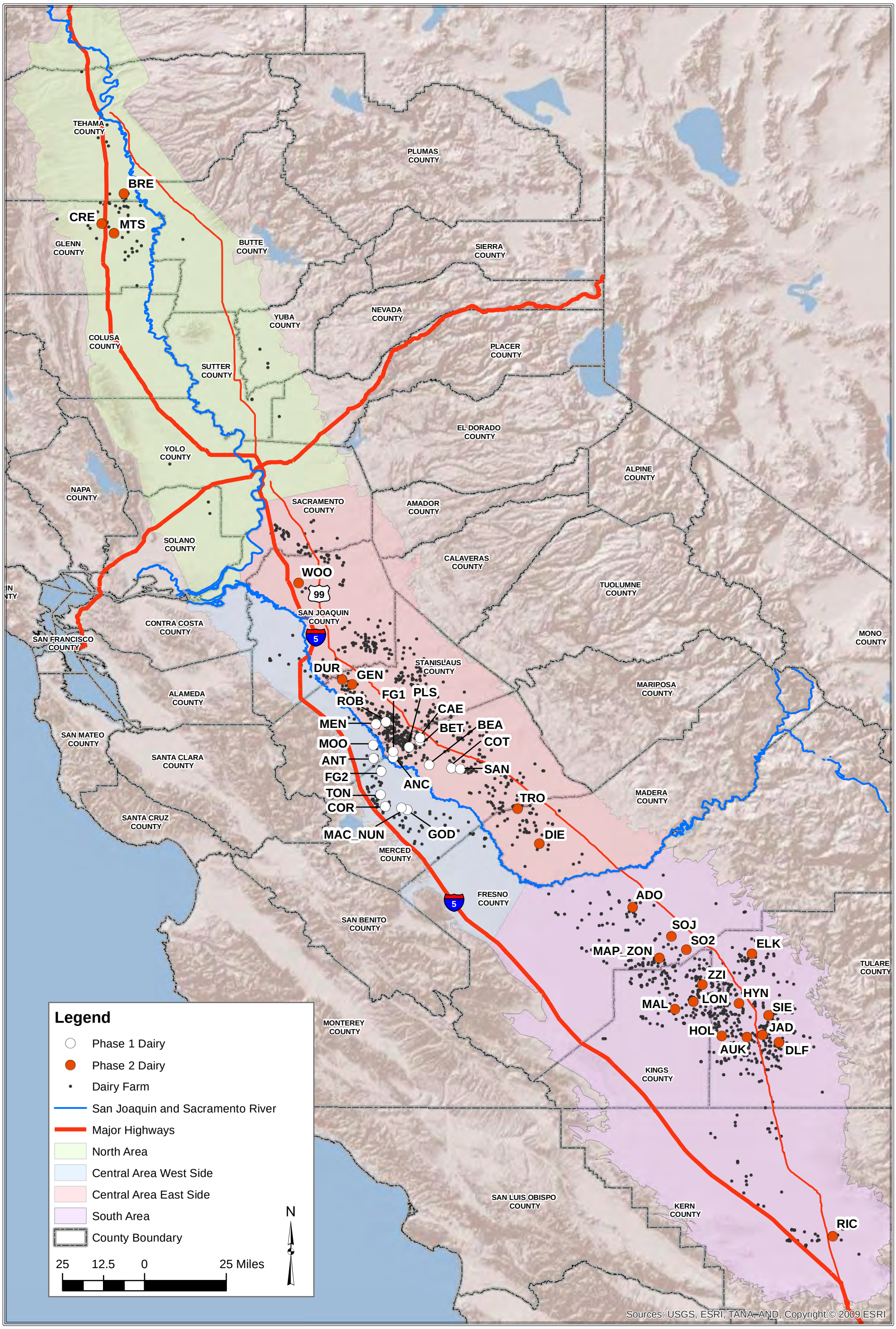
Sozinho Dairy No. 2													
SO2-MW1	43-73	73	2/22/2013	65.90	2.80	10	20	8.53	547	19.7	88	560	light brown
SO2-MW2	42-72	72	2/22/2013	62.30	7.99	20	20	7.93	2,374	18.7	113	901	light brown
SO2-MW3	44.5-74.5	74.5	2/22/2013	66.80	-	15	20	7.90	2,150	18.7	120	> 1000	light brown
SO2-MW4	43-73	73	2/22/2013	69.50	0.45	10	20	7.87	1,749	18.7	119	14	clear
SO2-MW5s	75-90	90	2/22/2013	dry	na	0	0	na	na	na	na	na	na
SO2-MW5d	95-105	105	2/22/2013	66.65	0.16	20	20	7.41	2,430	20.5	117	218	light brown
SO2-MW6s	70-85	85	2/22/2013	64.94	0.60	30	20	7.83	1,923	18.4	126	634	light brown
SO2-MW6d	89.5-99.5	99.5	2/22/2013	64.95	0.20	50	20	7.50	1,894	18.2	129	64	clear
SO2-MW7s	65-75	75	2/22/2013	63.70	1.59	30	20	7.82	1,809	17.6	128	400	light brown
SO2-MW7d	80-90	90	2/22/2013	63.72	2.45	50	20	7.39	1,869	17.2	140	210	clear
SO2-MW8s	20-30	30	2/22/2013	62.35	0.95	25	20	7.63	2,069	18.2	182	112	clear
SO2-MW8d	70-85	85	2/22/2013	62.32	2.05	40	20	7.52	2,247	18.2	157	75	clear
Sozinho Jerseys													
SOJ-MW1	46.0-75.85	76.43	2/20-21/2013	dry	1.15	0	0	na	na	na	na	na	na
SOJ-MW2	38.5-68.4	72.93	2/20-21/2013	dry	0.70	0	0	na	na	na	na	na	na
SOJ-MW3	41.4-71.25	71.83	2/20-21/2013	dry	0.38	0	0	na	na	na	na	na	na
SOJ-MW4	42.0-71.9	72.46	2/20-21/2013	dry	0.95	0	0	na	na	na	na	na	na
SOJ-MW5s	76-86	86	2/20-21/2013	78.01	0.00	20	20	7.41	1,795	19.6	115	657	light brown
SOJ-MW5d	95-105	105	2/20-21/2013	77.98	0.55	40	30	7.95	1,289	20.0	97	845	light brown
SOJ-MW6s	75-85	85	2/20-21/2013	76.68	0.40	20	20	7.68	1,146	20.1	110	318	light brown
SOJ-MW6d	95-105	105	2/20-21/2013	76.70	1.12	50	30	8.34	654	20.3	96	223	light brown

Table 4
Summary of Selected Well Development Notes
Central Valley Dairy Representative Monitoring Program

CVDRMP Well Name (1)	Screen Interval (feet, bgs)	Depth of Completed Well (feet, bgs)	Date of Development	DTW Before Well Development (feet)	Initial Development: Sediment Removed from Well (feet)	Initial Development: Water Removed from Well (gallons)	Polishing: Water Removed from Well (gallons)	Final Measurements: pH	Final Measurements: EC (µS/cm)	Final Measurements: T (°C)	Final Measurements: ORP (mV/cm)	Final Measurements: Turb. (NTU)	Final Measurements: Color
Zonneveld Dairy Complex													
ZON-MW1A	9.5-14.5	14.25	2/25-27/2013	dry	0.10	0	0	na	na	na	na	na	na
ZON-MW1B		-	2/25-27/2013	dry	1.65	0	0	na	na	na	na	na	na
ZON-MW1C	72.5-107.5	-	2/25-27/2013	103.93	1.10	5	20	8.25	1,179	22.0	109	175	clear
ZON-MW2A	60-90	94	2/25-27/2013	93.00	0.20	5	30	8.25	381	18.9	98	496	light brown
ZON-MW2B	125-135	139	2/25-27/2013	102.15	0.15	20	20	8.75	340	18.3	76	509	light brown
ZON-MW3A	67-97	100	2/25-27/2013	99.42	0.00	5	0	na	na	na	na	na	na
ZON-MW3B	117-132	137	2/25-27/2013	101.74	1.70	25	20	8.13	1,129	23.2	119	125	light brown
ZON-MW4A	60-90	95	2/25-27/2013	dry	0.16	5	0	na	na	na	na	na	na
ZON-MW4B	125-135	140	2/25-27/2013	110.55	0.00	25	20	7.73	1,315	21.5	118	695	light brown
ZON-MW5A	65-95	98	2/25-27/2013	96.95	0.00	5	0	na	na	na	na	na	na
ZON-MW5B	128-138	140.5	2/25-27/2013	107.62	0.70	25	20	7.96	996	21.7	114	115	light brown
ZON-MW7	88-108	111.9	2/25-27/2013	111.20	0.08	0	0	na	na	na	na	na	na

Development methods included airlifting, bailing, swabbing, pumping and purging. Polishing included variable speed pumping.
bgs=below ground surface; EC=electrical conductivity in µS/cm (micro Siemens per centimeter); T=temperature in degrees Celsius, ORP=oxygen reduction potential in milli Volt per c
Turb.=turbidity in nephalometric turbidity units; nm=not measured; na=not applicable
(1) Casing material is PVC. Inside casing diameter is 2 inches except TRO-MW1 (3 inches); DLF-MW1, 2, 3 and SIE-MW4 (4 inches).



Clerical\2012\12-019\Data\GIS\Jeanette\Figure 1 Location Map of Monitored RMP Dairies CVDRMP20130503.mxd

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CONSULTING ENGINEERS

Figure 1
Location Map of Monitored RMP Dairies
Central Valley Dairy Representative Monitoring Program