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Exempt from filing fees
under Government Code §6103

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

ANTELOPE VALLEY GROUNDWATER CASES

Included Actions:
Los Angeles County Waterworks District No. 40 v. Diamond Farming Co., Superior Court of California, County of Los Angeles, Case No. BC 325201;

Los Angeles County Waterworks District No. 40 v. Diamond Farming Co., Superior Court of California, County of Kern, Case No. S-1500-CV-254-348;

Wm. Bolthouse Farms, Inc. v. City of Lancaster, Diamond Farming Co. v. City of Lancaster, Diamond Farming Co. v. Palmdale Water Dist., Superior Court of California, County of Riverside, Case Nos. RIC 353 840, RIC 344 436, RIC 344 668

Judicial Council Coordination No. 4408

CLASS ACTION

Santa Clara Case No. 1-05-CV-049053
Assigned to The Honorable Jack Komar

REVISED DECLARATION OF GERALD T. BOETSCH JR. IN LIEU OF DEPOSITION TESTIMONY FOR PHASE 4 TRIAL

DECLARATION

I, Gerald T. Boetsch Jr., declare:

1. I am a Mechanical Engineer for the U.S. Department of the Air Force, assigned to Edwards Air Force Base (Edwards AFB). The United States is a party to this action. In lieu of deposition testimony for the Phase 4 trial, I am providing this declaration. I have personal knowledge of each fact herein, or have obtained these facts from the business records of Edwards AFB and would testify competently thereto under oath.

Property Ownership and Parcel Size

2. The United States owns property known as Edwards AFB that overlies the Antelope Valley Area of Adjudication as decided by this Court. The land is in Kern County and Los Angeles County within the adjudication area, and also includes a portion of San Bernardino County, and is identified by the APNs described in Exhibit A attached hereto and incorporated herein by reference.

3. With respect to Edwards AFB, the United States claims groundwater rights only as to the properties listed in Paragraph 2 and Exhibit A.

4. The total acreage within the boundaries of Edwards AFB is approximately 307,000 acres.

5. The United States of America currently owns the entire Edwards AFB property and has owned the property since at least January 1, 2000.

6. The United States is the only individuals/entities appearing on the title for the above identified APNs from Jan 1, 2000 to the present.

Water Meter Records

7. The United States measures the groundwater production on the above referenced properties by water meters. Bates-numbered documents USAF000854 – USAF001648, USAF005494 – USAF005799 and USAF005800 - USAF007238 in the U.S. Document Production contain the records for these water meters for the following years: 2000-2004, 2011 and January 1 to November 30, 2012. Exhibit E contains the records for these water meters for December 2012. The meter data is collected and recorded daily by military or

civilian employee personnel in the scope of their duty, and the daily records are transcribed onto Air Force Form 1461 on a monthly basis.

8. Exhibit B sets forth the total yearly production amounts by APN for metered water wells on the above referenced properties for the years 2000-2004, 2011 and 2012. A true and correct copy of Exhibit B is attached hereto and incorporated herein.

State Water Project Purchases

9. The United States purchases State Water Project water from the Antelope Valley – East Kern Water Agency (AVEK), a State Water Contractor, for use by the United States on the properties referenced above. The United States measures the State Water Project water entering Edwards AFB by a water meter. Bates-numbered documents USAF005494 - USAF007238 in the U.S. Document Production contain the records for this water meter for the following years: 2000-2004, 2011 and January 1 to November 30, 2012. Exhibit E contains the records for this water meter for December 2012. The meter data is collected and recorded daily by military or civilian employee personnel in the scope of their duty, and the daily records are transcribed onto Air Force Form 1461 on a monthly basis.

10. Exhibit C sets forth the total yearly State Water Project water deliveries to the properties referenced above for the years 2000-2004, 2011 and 2012. A true and correct copy of Exhibit C is attached hereto and incorporated herein.

Other Sources of Water

11. I understand the United States considers recycled water from the Edwards AFB wastewater treatment plant to be water from a source other than groundwater pumped within the Basin or State Water Project Water. On the properties referenced above, the United States used recycled water. Bates-numbered documents USAF05369 – USAF5493 in the U.S. Document Production contains the records of recycled water use for the following years: 2000-2004, 2011 and January 1 to September 30, 2012. Exhibit E contains the records of recycled water use from October 1 to December 31, 2012. Exhibit D sets forth the amounts of recycled water used for the years 2000-2004, 2011 and 2012.

Use of Water

12. The United States used 7,640 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2000. Of the amount of water used in 2000, 3842.69 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: Military purposes in connection with Edwards AFB. Water at Edwards AFB was used for domestic, industrial, construction and fire protection purposes to support the military mission. Examples include supplying water to industrial production facilities, cooling rocket motors, aircraft maintenance, office buildings, commercial and shopping areas for base personnel, residences, drinking water, irrigation of landscaping, schools, medical clinic, and recreation.

13. The United States used 7,680 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2001. Of the amount of water used in 2001, 4277.59 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

14. The United States used 6,445 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2002. Of the amount of water used in 2002, 3274.7 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

15. The United States used 5,814 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2003. Of the amount of water used in 2003, 2059.1 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

16. The United States used 5,905 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2004. Of the amount of water used in 2004, 3213.86 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

17. The United States used 3,118 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2011. Of the amount of water used in 2011, 838.75 acre

feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

18. The United States used 2,962 acre feet of water (groundwater, surface water, recycled water) on the above identified APNs in 2012. Of the amount of water used in 2012, 1059.21 acre feet were pumped and used from the groundwater underlying Edwards AFB. The water was used for the following: See response to paragraph 12 above.

19. Other than what is declared hereinabove, the United States did not produce or use water within the Antelope Valley Area of Adjudication for Edwards AFB for 2000-2004, 2011 and 2012.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 31 day of May 2013, at Edwards AFB, California.

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
230-020-01	3145-004-300	049209106
230-080-20	3145-004-908	049226204
232-081-11	3145-004-901	049222107
232-220-18	3145-004-902	049220106
232-220-21	3145-004-900	049222109
232-220-24	3145-004-907	049222113
232-220-25	3145-004-905	049222114
233-231-15	3145-004-904	049220105
233-231-17	3145-004-911	049315101
233-330-06	3145-004-910	049312404
233-340-07	3145-004-909	049314102
233-340-10	3145-004-906	049220101
233-340-13	3145-024-902	049316117
234-052-16	3145-024-900	049220102
234-052-19	3145-024-901	049220102
234-052-20	3145-022-900	049208101
234-053-27	3145-022-902	049208102
234-053-28	3145-024-904	049313105
234-053-29	3145-022-904	049313106
234-053-30	3145-022-905	049315106
234-053-31	3145-022-903	049314105
234-053-32	3145-024-903	049211109
234-061-11	3314-001-908	049314106
234-061-13	3316-001-900	049316116
234-061-14	3316-001-901	049316115
234-061-16	3316-001-905	049315105
234-061-18	3316-001-903	049312402
234-061-19	3316-001-902	049316118
234-061-27	3310-001-900	049316119
234-061-28	3310-001-905	049316110
244-010-11	3314-001-903	049317105

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-010-12	3314-001-904	049316120
244-010-13	3314-001-905	049316114
244-020-01	3314-001-902	049316106
244-020-02	3314-001-901	049208103
244-020-03	3314-001-900	049222110
244-020-04	3302-001-901	049208104
244-030-01	3302-001-300	049210102
244-030-02	3302-001-904	049316102
244-030-03	3302-001-903	049213124
244-030-04	3302-001-907	049210101
244-040-01	3302-001-908	049313102
244-040-02	3302-001-900	049312403
244-040-04	3302-001-905	049209105
244-040-05	3306-001-900	049210109
244-040-06	3306-001-901	049226203
244-050-01	3306-001-300	049222108
244-050-02	3306-001-902	049208106
244-050-03	3306-001-904	049209104
244-050-04	3306-001-903	049220105
244-050-05	3306-001-908	049209103
244-050-06	3306-001-906	049314101
244-050-07	3306-001-905	049315102
244-050-08	3310-007-900	049210110
244-060-01	3310-007-901	049208105
244-060-02	3310-007-300	049315104
244-060-03	3310-001-901	049313101
244-060-04	3310-001-902	049314103
244-060-05	3310-001-903	049314104
244-060-06	3310-001-904	049315103
244-070-01	3310-001-907	049226202
244-070-02	3310-001-908	049226201

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-070-03	3310-001-906	049222112
244-070-04	3314-001-907	049222111
244-070-05	3314-001-906	049211101
244-070-06	3314-001-300	049211102
244-080-01	3314-001-911	049312401
244-080-02	3314-001-910	049317106
244-080-03	3316-001-906	049316105
244-080-04	3316-001-911	049220101
244-080-05	3316-001-301	049219107
244-080-06	3316-001-910	049311101
244-090-01	3316-001-300	049311102
244-090-02	3316-001-907	049316107
244-090-03	3316-001-908	049316108
244-090-04	3302-001-906	049316109
244-090-05	3316-001-904	049316111
244-090-06	3145-022-901	049316112
244-100-01	3316-001-909	049316113
244-100-02	3314-001-909	049316121
244-100-03	3302-001-902	049311106
244-100-04	3306-001-907	049317104
244-100-05		049316103
244-100-06		049317102
244-100-07		049316101
244-100-08		049317101
244-110-01		049311105
244-110-02		049317103
244-110-03		049316104
244-110-04		049209101
244-110-05		049209102
244-110-06		049211108
244-110-07		049314107

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-120-01		
244-120-02		
244-120-03		
244-120-04		
244-120-05		
244-120-06		
244-130-01		
244-130-02		
244-130-03		
244-130-04		
244-130-05		
244-130-06		
244-130-07		
244-140-01		
244-140-02		
244-140-03		
244-140-04		
244-140-05		
244-140-06		
244-150-01		
244-150-02		
244-150-03		
244-150-04		
244-150-05		
244-150-06		
244-150-07		
244-150-08		
244-160-01		
244-160-02		
244-160-03		
244-160-04		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-160-05		
244-160-06		
244-160-07		
244-160-08		
244-160-09		
244-170-01		
244-170-02		
244-170-03		
244-170-04		
244-170-05		
244-170-06		
244-170-07		
244-170-08		
244-170-09		
244-170-10		
244-180-01		
244-180-02		
244-180-03		
244-180-04		
244-180-05		
244-180-06		
244-190-01		
244-190-02		
244-190-03		
244-190-04		
244-190-05		
244-190-06		
244-190-07		
244-190-08		
244-200-01		
244-200-02		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-200-03		
244-200-04		
244-200-05		
244-200-06		
244-210-01		
244-210-02		
244-210-03		
244-210-04		
244-210-05		
244-210-06		
244-210-07		
244-210-08		
244-240-01		
244-240-02		
244-240-03		
244-240-04		
244-240-05		
244-240-06		
244-250-01		
244-250-02		
244-250-03		
244-250-04		
244-250-05		
244-250-06		
244-250-07		
244-250-08		
244-260-01		
244-260-02		
244-260-03		
244-260-04		
244-260-05		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
244-260-06		
244-270-01		
244-270-02		
244-270-03		
244-270-04		
244-270-05		
244-270-06		
244-270-07		
244-270-08		
248-010-01		
248-010-02		
248-010-03		
248-010-04		
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248-020-02		
248-020-03		
248-020-04		
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248-030-01		
248-030-02		
248-030-03		
248-030-04		
248-040-01		
248-040-02		
248-040-03		
248-040-04		
248-040-05		
248-040-06		
248-040-07		
248-040-08		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-040-09		
248-050-01		
248-050-02		
248-050-03		
248-050-04		
248-050-05		
248-050-06		
248-050-07		
248-050-08		
248-060-01		
248-060-02		
248-060-03		
248-060-04		
248-060-05		
248-060-06		
248-070-01		
248-070-02		
248-070-03		
248-070-04		
248-070-05		
248-070-06		
248-070-07		
248-080-01		
248-080-02		
248-080-03		
248-080-04		
248-080-05		
248-080-06		
248-090-01		
248-090-02		
248-090-03		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-090-04		
248-090-05		
248-090-06		
248-090-07		
248-090-08		
248-100-01		
248-100-02		
248-100-03		
248-100-04		
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248-100-06		
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248-110-01		
248-110-02		
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248-110-06		
248-110-07		
248-110-08		
248-110-09		
248-110-10		
248-120-01		
248-120-02		
248-120-03		
248-120-04		
248-120-05		
248-120-06		
248-130-01		
248-130-02		
248-130-03		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-130-04		
248-130-05		
248-130-06		
248-140-01		
248-140-02		
248-140-03		
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248-160-08		
248-160-09		
248-170-01		
248-170-02		
248-170-03		
248-170-04		
248-170-05		
248-170-06		
248-170-07		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-170-08		
248-170-09		
248-170-10		
248-180-01		
248-180-02		
248-180-03		
248-180-04		
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248-180-06		
248-190-01		
248-190-02		
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248-200-06		
248-210-01		
248-210-02		
248-210-03		
248-210-04		
248-210-05		
248-210-06		
248-220-01		
248-220-02		
248-220-03		
248-220-04		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-220-05		
248-220-06		
248-220-07		
248-220-08		
248-220-09		
248-230-01		
248-230-02		
248-230-03		
248-230-04		
248-230-05		
248-230-06		
248-230-07		
248-230-08		
248-230-09		
248-230-10		
248-240-01		
248-240-02		
248-240-03		
248-240-04		
248-240-05		
248-240-06		
248-250-01		
248-250-02		
248-250-03		
248-250-04		
248-250-05		
248-250-06		
248-250-07		
248-250-08		
248-260-01		
248-260-02		

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
248-260-03		
248-260-04		
248-260-05		
248-260-06		
248-270-01		
248-270-02		
248-270-03		
248-270-04		
248-270-05		
248-270-06		
248-270-07		
248-270-08		
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430-011-02		
430-011-03		
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430-011-05		
430-011-06		
431-010-03		
431-010-04		
431-010-05		
431-010-06		
431-010-07		
431-010-08		
471-010-02		
471-010-03		
471-010-04		
471-010-05		
471-010-06		
471-010-08		
471-010-09		

Exhibit A - Assessor Parcel Numbers for Edwards AFB

Kern County Assessor Parcel Numbers	Los Angeles County Assessor Identifcation Number	San Bernardino County Assessor Parcel Numbers
471-010-11		
471-030-02		
471-030-03		
471-030-04		
471-030-05		
471-030-06		
471-030-07		
471-030-08		
471-040-02		
471-040-03		
471-040-04		
471-040-06		
471-040-07		
471-040-08		

Exhibit B - Edwards AFB Water Well Locations and Production

		Groundwater produced (acre-feet)						
		Kern County						
Type of Well	**APN for Well**	2000	2001	2002	2003	2004	2011	2012
Production	248-180-04	21.21	93.78	308.91	202.62	184.53	9.96	189.54
Production	248-120-03	13.17	9.97	11.31	9.62	32.97	0	0
Production	248-190-03	6.59	5.02	11	52.26	182.92	52.65	6.18
Production	248-120-05	8.37	12.15	20.59	20.26	41.4	72.37	39.22
Production	248-120-02	9.04	6.41	12.79	24.41	4.22	0	80.14
Production	248-200-04	3110.32	2879.4	2260.01	1028.1	2011.58	461.48	382.8
Production	248-200-06	235.58	283.79	254.06	320.89	333.49	119.12	300.29
Production	248-120-01	6.72	4.96	5.17	0	25.66	88.74	44.02
Extraction for remedial system	244-180-02	0	6.95	22.76	15.05	14.23	0	0
Extraction for remedial system	244-180-04	35.92	54.18	34.85	11.08	22.07	0	0
Extraction for remedial system	244-200-03	49.78	40.4	21.22	7.78	1.85	0	0
Extraction for remedial system	248-110-01	6.7	33.81	37.35	24.34	46.96	0	0
Extraction for remedial system	244-080-02	0	4.38	18.33	11.03	8.12	0	0
Extraction for remedial system	244-080-03	1.49	0.53	0.32	0.33	1.46	0	0
		Los Angeles County						
		2000	2001	2002	2003	2004	2011	2012
Production	3310-001-901	299.33	829.17	235.88	318.63	285.85	34.43	17.02
Production	3310-001-900	38.47	12.69	20.15	12.7	16.55	0	0
	Total	**3842.69**	**4277.59**	**3274.7**	**2059.1**	**3213.86**	**838.75**	**1059.21**

Exhibit C - Edwards AFB Surface Water Purchases (acre-feet)

2000	2001	2002	2003	2004	2011	2012
2842.55	2522	2232.55	2875.47	1976.56	1744.76	1754.78

Exhibit D - Edwards AFB Recycled Water Use (acre-feet)

Purpose	2000	2001	2002	2003	2004	2011	2012
Irrigation	955.27	880.53	938.19	880.05	714.7	534.51	148.5
Evaporation ponds	781.1	538.1	332.68	561.85	524.28	129.71	134.6

Exhibit E - Meter records Dec 2012 and recycled water reports Oct - Dec 2012

WATER UTILITY OPERATING LOG (GENERAL) 1461

PLANT South Base Page 1 | INSTALLATION: Edwards AFB | COMMAND: AFMC | MONTH AND YEAR: DECEMBER 2012

DATE	SOURCE			WATER TREATMENT				CHEMICAL ANALYSIS							PUMPING LOG																	
					TYPE	CHLORINE (Lbs)		TOTAL RESIDUAL CHLORINE							WELL NO. S-3			WELL NO. S-4			WELL NO. S-5			WELL NO. T-1			WELL NO. T-2			WELL NO. S-10		
	PURCHASED WATER	WELL WATER PRODUCED	SURFACED WATER PRODUCED	TOTAL WATER (1000 Gals)		PRE	POST	FREE	COMBINED	RESIDUAL CHLORINE	pH				HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF
1		7		7			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
2		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
3		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
4		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
5		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
6		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
7		7		7			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
8		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
9		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
10		141		141			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
11		0		0			0			1.0	7.5				1.9	64	22.2'	0.0	0		0.0	0		0.0	0		0.0	0		1.1	77	40.2'
12		29		29			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
13		214		214			0			1.0	7.5				0.8	29		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
14		0		0			0			1.0	7.5				0.0	0		1.1	106	4.3'	1.0	108	9.9'	0.0	0		0.0	0		0.0	0	
15		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
16		7		7			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
17		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
18		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
19		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
20		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
21		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
22		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
23		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
24		0		0			0			1.0	7.5				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
25		127		127			0			1.0	7.4				0.0	0		0.0	0		1.2	127	6.9'	0.0	0		0.0	0		0.0	0	
26		39		39			0			1.0	7.4				1.1	39		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
27		224		224			0			1.0	7.4				0.0	0		1.1	104	3.7'	0.4	46		0.0	0		0.0	0		1.1	74	47.0'
28		13		13			0			1.0	7.4				0.0	0		0.0	0		0.0	0		0.0	0		0.4	13		0.0	0	
29		0		0			0			1.0	7.4				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
30		0		0			0			1.0	7.4				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
31		0		0			0			1.0	7.4				0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	
TOTAL		808		808			0								3.8	132		2.2	210		2.6	281		0.0	0		0.4	13		2.2	151	
AVG.		26		26											0.1	4		0.1	7		0.1	9		0.0	0		0.0	0		0.1	5	
MAX.		224		224											1.9	64		1.1	106		1.2	127		0.0	0		0.4	13		1.1	77	
MIN.		0		0											0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	

BACTERIOLOGICAL ANALYSIS

DILUTION METHOD		MEMBRANE FILTER METHOD	
SAMPLES (*Total number*)	SAMPLES (*No. positive*)	SAMPLES (*Total Number*)	AVERAGE COLIFORM DENSITY
28	0	N/A	N/A
10ML PORTIONS (*Number tested*)	10 ML PORTIONS (*No. positive*)		
N/A	N/A		

During the report period, the water supply at this installation X did ___ did not meet minimum requirements of bacteriological quality on the basis of criteria forth in paragraph 12e, AFM 160-4.

DATE: 8 Feb 2013

SIGNATURE-BASE PREVENTIVE MEDICINE SERVICE REPR.

REMARKS

WELL T-1 INOP

WELL T-2 Unable to drawdown with compressor

Chlorine Scale malfunctioned, chlorine was being fed as indicated in chlorine residual column

STATIC WATER LEVELS		
DATE	WELL #	DEPTH
26-Dec	S-3	110.1'
28-Dec	S-4	125.9'
25-Dec	S-5	130.2'
*	T-1	*
*	T-2	*
27-Dec	S-10	121.8'

Monthly Average Equivalent Population

SIGNATURE OF PERSON PREPARING REPORT

TITLE: Water Treatment Plant Operator

DATE SUBMITTED: 31 Jan 13

SIGNATURE OF BASE CIVIL ENGINEER

DATE APPROVED: 4 FEB 13

AF Form 1461 is for use by all installations having a water supply requiring no more than partial treatment. It will be prepared in duplicate and posted daily by the person in charge of the water system. After being completed and signed by the person preparing the report and by the Base Civil Engineer for review and approval. After approval, the Base Civil Engineer will forward the second or carbon copy to the Major Air Command, Attention: Civil Engineer, not later than the 20th of the following month. Copies will be forwarded to headquarters USAF.

Col. A Purchased water. Enter total volume of water purchased during the 24-hour period between meter readings. Express in units of 1,000 gallons

Col. B Well Water Produced. Enter total volume of well water produced from Department of the Air Force owned or operated wells between meter readings for 24-hour period. Express entry in 1,000-gallon units.

Col. C Surface Water Produced. Enter total volume of water produced from Department of the Air Force owned or operated surface supplies during the 24-hour period between meter readings. Express in 1,000 gallon units.

Col. D Total Water (1,000 gals). Enter the total of all water by adding column A, B, and C.

Col. E-I. Water treatment. Enter in the blank heading over columns E, F, and G the type of treatment provided, such as scale and corrosion control, aeration, zeolite softening, etc. Do not enter treatment provided in connection with a filtration plant. (Use Form AF 1460 to record chemicals used in filtration process.) Enter in the blank column headings the names of chemicals used, and the pounds of such chemicals used daily. In columns H and I, enter pounds chlorine used in 24-hour period (pre and post).

Col. J. OTA Residual Chlorine-Free. Where the ortho-tolodine-arsenic test is used, enter the average results of daily "free available chlorine" determinations expressed in ppm to the nearest tenth (0.1).

Col. K. OTA Residual Chlorine-Combined. Where the ortho-tolodine-arsenie test is used, enter the average results of daily "combined chlorine" determinations expressed in ppm to the nearest tenth (0.1)

Col. L. OT Residual Chlorine. Where the ortho-tolodine test is used, enter average results of daily residual chlorine determinations expressed in ppm to the nearest tenth (0.1)

Col. M. pH- Enter in column heading under pH whether raw or tap water test. Enter the daily average pH of the water tested.

Col. N-P. Blank Columns. Use the columns to report results of any other chemical analyses.

Well number. Insert well numbers in appropriate spaces. Follow the instrctions for columns Q, R, and S for each of the wells pumped during the month. Use additional sheets if more than five wells are reported.

Col. Q. Hours Pumped. Enter the total number of hours pump was actually operated during the 24-hour period, to the nearest one-tenth hour.

Col. R. Production (1,000 gals). Enter the total production from the well during the 24-hour period to the nearest 1,000-gallon unit.

Col. S. Drawdown (feet). Enter the drawdown of the well in feet from the water level before pumping to the lowest level during pumping.

Samples (total number). Enter the total number of tap water samples (not portions) tested during the month by the Base Preventive Medicine Service Representative.

Samples (number positive). Enter the total number of tap water samples (not portions) tested during the month which showed three or more positive 10-ml. portions.

10-ml Portions (number tested). Enter total number of 10-ml portions (not samples) from tap water samples which were tested during the month by the Base Preventive Medicine Service Representative.

10-ml. Portions (number positive) Enter the total number of 10-ml. portions (not samples) from tap water samples which were tested during the month by the Base Preventive Medicine Service Representative which showed positive.

Static Water Levels. Record the static water level of each well at least once each month. Well should be rested a sufficient length of time before detremining the static level to enable the water to rise to the actual static level. Enter number of feet below top of casing, or ground level if not cased.

Average Coliform Density. Compute the coliform density (per 100 ml.) for each sample tested during the month by use of the following formula:

$$C.D. = \frac{100 \times (\text{Coliform colonies on M.F.})}{}$$

Enter average coliform density which is obtained by adding the computed C.D. of all samples tested and dividing this total by the number of samples tested.

Remarks. Under remarks enter any extraordinary or unusual conditions or circumstances occurring during the month, such as, breakdowns, flooding, drought, unusual water demands, failure of purchased water supply, well failures, etc.

WATER UTILITY OPERATING LOG (GENERAL) — 1461

PLANT: South Base — Page 2 | INSTALLATION: Edwards AFB | COMMAND: AFMC | MONTH AND YEAR: DECEMBER 2012

DATE	SOURCE			WATER TREATMENT				CHEMICAL ANALYSIS							PUMPING LOG																
					TYPE	CHLORINE (Lbs)		TOTAL RESIDUAL CHLORINE							WELL NO. C-3			WELL NO. C-4			WELL NO.			WELL NO.			WELL NO.			WELL NO.		
	PURCHASED WATER	WELL WATER PRODUCED	SURFACED WATER PRODUCED	TOTAL WATER (1000 Gals)		PRE	POST	FREE	COMBINED	RESIDUAL CHLORINE	pH				HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF
1		7		7			0			1.0	7.7				0.0	0		0.2	7													
2		0		0			0			1.0	7.7				0.0	0		0.0	0													
3		0		0			0			1.0	7.7				0.0	0		0.0	0													
4		0		0			0			1.0	7.7				0.0	0		0.0	0													
5		0		0			0			1.0	7.7				0.0	0		0.0	0													
6		0		0			0			1.0	7.7				0.0	0		0.0	0													
7		7		7			0.25			1.0	7.7				0.0	0		0.0	0													
8		0		0			0			1.0	7.7				0.0	0		0.2	7													
9		0		0			0			1.0	7.7				0.0	0		0.0	0													
10		0		0			0			1.0	7.7				0.0	0		0.0	0													
11		0		0			0			1.0	7.7				0.0	0		0.0	0													
12		0		0			0			1.0	7.7				0.0	0		0.0	0													
13		0		0			0			1.0	7.7				0.0	0		0.0	0													
14		0		0			0			1.0	7.7				0.0	0		0.0	0													
15		0		0			0			1.0	7.7				0.0	0		0.0	0													
16		7		7			0			1.0	7.7				0.0	0		0.0	0													
17		0		0			0			1.0	7.7				0.0	0		0.2	7													
18		0		0			0			1.0	7.7				0.0	0		0.0	0													
19		0		0			0			1.0	7.7				0.0	0		0.0	0													
20		0		0			0			1.0	7.7				0.0	0		0.0	0													
21		0		0			0			1.0	7.7				0.0	0		0.0	0													
22		0		0			0			1.0	7.7				0.0	0		0.0	0													
23		0		0			0			1.0	7.7				0.0	0		0.0	0													
24		0		0			0.25			1.0	7.7				0.0	0		0.0	0													
25		0		0			0			1.0	7.7				0.0	0		0.0	0													
26		0		0			0			1.0	7.7				0.0	0		0.0	0													
27		0		0			0			1.0	7.7				0.0	0		0.0	0													
28		0		0			0			1.0	7.7				0.0	0		0.0	0													
29		0		0			0			1.0	7.7				0.0	0		0.0	0													
30		0		0			0			1.0	7.7				0.0	0		0.0	0													
31		0		0			0			1.0	7.7				0.0	0		0.0	0													
TOTAL		21		21			0.5								0.0	0		0.6	21		0.0	0		0.0	0		0.0	0		0.0	0	
AVG.		1		1											0.0	0		0.0	1		#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	
MAX.		7		7											0.0	0		0.2	7		0.0	0		0.0	0		0.0	0		0.0	0	
MIN.		0		0											0.0	0		0.0	0		0.0	0		0.0	0		0.0	0		0.0	0	

BACTERIOLOGICAL ANALYSIS

DILUTION METHOD		MEMBRANE FILTER METHOD	
SAMPLES (*Total number*)	SAMPLES (*No. positive*)	SAMPLES (*Total Number*)	AVERAGE COLIFORM DENSITY
28	0	N/A	N/A
10ML PORTIONS (*Number tested*)	10 ML PORTIONS (*No. positive*)	DATE	
N/A	N/A	8 Feb 2013	

During the report period, the water supply at this installation X did ___ did not meet minimum requirements of bacteriological quality on the basis of criteria forth in paragraph 12e, AFM 160-4.

SIGNATURE, BASE PREVENTIVE MEDICINE SERVICE REPR.

REMARKS

WELL C-3 Operating Permit Amendment awaiting approval, Well not in use.
Well C-4 Unable to drawdown with compressor

STATIC WATER LEVELS

DATE	WELL #	DEPTH
*	C-3	*
*	C-4	*

Monthly Average Equivalent Population

SIGNATURE OF PERSON PREPARING REPORT

TITLE
Water Treatment Plant Operator

DATE SUBMITTED
31 Jan 13

SIGNATURE OF BASE CIVIL ENGINEER

DATE APPROVED
27 Feb 13

AF Form 1461 is for use by all installations having a water supply requiring no more than partial treatment. It will be prepared in duplicate and posted daily by the person in charge of the water system. After being completed and signed by the person preparing the report and by the Base Civil Engineer for review and approval. After approval, the Base Civil Engineer will forward the second or carbon copy to the Major Air Command, Attention: Civil Engineer, not later than the 20th of the following month. Copies will be forwarded to headquarters USAF.

Col. A Purchased water. Enter total volume of water purchased during the 24-hour period between meter readings. Express in units of 1,000 gallons

Col. B Well Water Produced. Enter total volume of well water produced from Department of the Air Force owned or operated wells between meter readings for 24-hour period. Express entry in 1,000-gallon units.

Col. C Surface Water Produced. Enter total volume of water produced from Department of the Air Force owned or operated surface supplies during the 24-hour period between meter readings. Express in 1,000 gallon units.

Col. D Total Water (1,000 gals). Enter the total of all water by adding column A, B, and C.

Col. E-I. Water treatment. Enter in the blank heading over columns E, F, and G the type of treatment provided, such as scale and corrosion control, aeration, zeolite softening, etc. Do not enter treatment provided in connection with a filtration plant. (Use Form AF 1460 to record chemicals used in filtration process.) Enter in the blank column headings the names of chemicals used, and the pounds of such chemicals used daily. In columns H and I, enter pounds chlorine used in 24-hour period (pre and post).

Col. J. OTA Residual Chlorine-Free. Where the ortho-tolodine-arsenic test is used, enter the average results of daily "free available chlorine" determinations expressed in ppm to the nearest tenth (0.1).

Col. K. OTA Residual Chlorine-Combined. Where the ortho-tolodine-arsenie test is used, enter the average results of daily "combined chlorine" determinations expressed in ppm to the nearest tenth (0.1)

Col. L. OT Residual Chlorine. Where the ortho-tolodine test is used, enter average results of daily residual chlorine determinations expressed in ppm to the nearest tenth (0.1)

Col. M. pH- Enter in column heading under pH whether raw or tap water test. Enter the daily average pH of the water tested.

Col. N-P. Blank Columns. Use the columns to report results of any other chemical analyses.

Well number. Insert well numbers in appropriate spaces. Follow the instrc-tions for columns Q, R, and S for each of the wells pumped during the month. Use additional sheets if more than five wells are reported.

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Samples (number positive). Enter the total number of tap water samples (not por tions) tested during the month which showed three or more positive 10-ml. portions.

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$$C.D. = \frac{100 \times (\text{Coliform colonies on M.F.})}{}$$

Enter average coliform density which is obtained by adding the computed C.D. of all samples tested and dividing this total by the number of samples tested.

Remarks. Under remarks enter any extraordinary or unusual conditions or circumstances occurring during the month, such as, breakdowns, flooding, drought, unusual water demands, failure of purchased water supply, well failures, etc.

WATER UTILITY OPERATING LOG (GENERAL)

1461

PLANT: AFRL | INSTALLATION: Edwards AFB | COMMAND: AFMC | MONTH AND YEAR : DECEMBER 2012

DATE	SOURCE				WATER TREATMENT					CHEMICAL ANALYSIS					PUMPING LOG																	
					TYPE			CHLORINE (Lbs.)		TOTAL RESIDUAL CHLORINE					WELL NO. A			WELL NO. B			WELL NO. C			WELL NO. D									
	PURCHASED WATER	WELL WATER PRODUCED	SURFACED WATER PRODUCED	TOTAL WATER (1000 Gals)				PRE	POST	FREE	COMBINED	RESIDUAL CHLORINE	pH		HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF
1		84		84					1			0.8	7.8					0.9	52		0.9	32			S							
2		56		56					1			0.8	7.8					0.6	35		0.6	21			T							
3		84		84					0			0.5	7.8					0.9	52		0.9	32			A							
4		111		111					1			0.7	7.8					1.2	69		1.2	42	5.4		N							
5		66		66					1			0.7	7.8					0.7	41	9.4	0.7	25			D							
6		84		84					1			0.9	7.8					0.9	52		0.9	32										
7		56		56					1			1.0	7.8					0.6	35		0.6	21			B							
8		102		102					1			1.0	7.8					1.1	63		1.1	39			Y							
9		47		47					0			0.8	7.8					0.5	29		0.5	18										
10		47		47					1			0.9	7.8					0.5	29		0.5	18			S							
11		139		139					1			1.1	7.8					1.5	86		1.5	53			T							
12		354		354					1			0.5	7.8					3.8	219		3.8	135			A							
13		139		139					1			0.8	7.8					1.5	86		1.5	53			T							
14		102		102					1			1.0	7.8					1.1	63		1.1	39			U							
15		139		139					1			0.8	7.8		1.5	53		1.5	86						S							
16		111		111					1			1.0	7.8		1.2	42		1.2	69													
17		139		139					1			0.8	7.8		1.5	53		1.5	86													
18		131		131					1			0.8	7.8		1.4	50		1.4	81	9.4												
19		102		102					1			1.0	7.8		1.1	39	3.8	1.1	63													
20		66		66					1			0.8	7.8		0.7	25		0.7	41													
21		121		121					1			1.0	7.8		1.3	46		1.3	75													
22		74		74					0			0.9	7.8		0.8	28		0.8	46													
23		102		102					1			0.9	7.8		1.1	39		1.1	63													
24		196		196					1			1.1	7.8		2.1	75		2.1	121													
25		47		47					1			1.3	7.8		0.5	18		0.5	29													
26		102		102					1			1.1	7.8		1.1	39		1.1	63													
27		149		149					0			1.0	7.8		1.6	57		1.6	92													
28		94		94					1			1.0	7.8		1.0	36		1.0	58													
29		74		74					1			0.9	7.8		0.8	28		0.8	46													
30		74		74					1			0.9	7.8		0.8	28		0.8	46													
31		158		158					1			1.3	7.8		1.7	60		1.7	98													
TOTAL		3,350		3,350					27						20.2	716		36.0	2,074		15.8	560		0.0	0							
AVG.		108		108											1.2	42		1.2	67		1.1	40		#DIV/0!	#DIV/0!							
MAX.		354		354											2.1	75		3.8	219		3.8	135		0.0	0							
MIN.		47		47											0.5	18		0.5	29		0.5	18		0.0	0							

BACTERIOLOGICAL ANALYSIS

DILUTION METHOD		MEMBRANE FILTER METHOD	
SAMPLES (*Total number*)	SAMPLES (*No. positive*)	SAMPLES (*Total Number*)	AVERAGE COLIFORM DENSITY
3	N/A	N/A	N/A
10ML PORTIONS (*Number tested*)	10 ML PORTIONS (*No. positive*)		
N/A	N/A		

During the report period, the water supply at this installation X did ___ did not meet minimum requirements of bacteriological quality on the basis of criteria forth in paragraph 12e, AFM 160-4.

DATE: 8 Feb 2013

SIGNATURE BASE PREVENTIVE MEDICINE SERVICE REPR.: [signature]

REMARKS

Well D in stand-by because arsenic level exceeds CA. DPH MCL standards. Stand-by status on record with state

Static levels on active wells A,B & C are currently being taken with an electronic sounding device and differ from scada telemetry readings from the past

STATIC WATER LEVELS

DATE	WELL #	DEPTH
1-Jan	A	109.9
1-Jan	B	123.2
1-Jan	C	146.4
*	D	*

Monthly Average Equivalent Population: <500

SIGNATURE OF PERSON PREPARING REPORT: [signature]

TITLE: Water Utilities Operator D-4 # 18641 S.O.C

DATE SUBMITTED: JAN 15, 2013

SIGNATURE OF BASE CIVIL ENGINEER: [signature]

DATE APPROVED: 27 Feb 13

AF Form 1461 is for use by all installations having a water supply requiring no more than partial treatment. It will be prepared in duplicate and posted daily by the person in charge of the water system. After being completed and signed by the person preparing the report and by the Base Civil Engineer for review and approval. After approval, the Base Civil Engineer will forward the second or carbon copy to the Major Air Command, Attention: Civil Engineer, not later than the 20th of the following month. Copies will be forwarded to headquarters USAF.

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Col. D Total Water (1,000 gals). Enter the total of all water by adding column A, B, and C.

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$$C.D. = \frac{100 \times (\text{Coliform colonies on M.F.})}{\text{---}}$$

Enter average coliform density which is obtained by adding the computed C.D. of all samples tested and dividing this total by the number of samples tested.

Remarks. Under remarks enter any extraordinary or unusual conditions or circumstances occurring during the month, such as, breakdowns, flooding, drought, unusual water demands, failure of purchased water supply, well failures, etc.

WATER UTILITY OPERATING LOG (GENERAL) 1461

PLANT: Non-Potable | INSTALLATION: Edwards AFB | COMMAND: AFMC | MONTH AND YEAR: DECEMBER 2012

DATE	SOURCE			WATER TREATMENT				CHEMICAL ANALYSIS							PUMPING LOG																
						CHLORINE (Lbs)		TOTAL RESIDUAL CHLORINE							WELL NO.		C-1	WELL NO.		S-2	WELL NO.		S-6	WELL NO.		S-7	WELL NO.			WELL NO.		
	PURCHASED WATER	WELL WATER PRODUCED	SURFACED WATER PRODUCED	TOTAL WATER (1000 Gals)	TYPE	PRE	POST	FREE	COMBINED	RESIDUAL CHLORINE	pH				HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF
1		0		0																												
2		259		259											0.0	0		0.0	0		0.0	0		0.0	0							
3		351		351											0.0	0		5.7	259		0.0	0		0.0	0							
4		289		289											0.0	0		7.7	351		0.0	0		0.0	0							
5		608		608											0.0	0		6.5	289		0.0	0		0.0	0							
6		388		388											0.0	0		13.4	608		0.0	0		0.0	0							
7		222		222											0.0	0		2.4	388		0.0	0		0.0	0							
8		146		146											0.0	0		11.1	222		0.0	0		0.0	0							
9		69		69											0.0	0		3.3	146		0.0	0		0.0	0							
10		420		420											4.6	69		0.0	0		0.0	0		0.0	0							
11		484		484											24.0	420		0.0	0		0.0	0		0.0	0							
12		708		708											24.0	420		1.3	64	3.1'	0.0	0		0.0	0							
13		1,194		1,194											24.0	420		6.4	288		0.0	0		0.0	0							
14		482		482											24.0	420		17.3	774		0.0	0		0.0	0							
15		420		420											24.0	420		1.4	62		0.0	0		0.0	0							
16		420		420											24.0	420		0.0	0		0.0	0		0.0	0							
17		420		420											24.0	420		0.0	0		0.0	0		0.0	0							
18		420		420											24.0	420		0.0	0		0.0	0		0.0	0							
19		420		420											24.0	420		0.0	0		0.0	0		0.0	0							
20		420		420											24.0	420		0.0	0		0.0	0		0.0	0							
21		339		339											24.0	420		0.0	0		0.0	0		0.0	0							
22		0		0											20.9	339		0.0	0		0.0	0		0.0	0							
23		36		36											0.0	0		0.0	0		0.0	0		0.0	0							
24		0		0											0.0	0		0.8	36		0.0	0		0.0	0							
25		0		0											0.0	0		0.0	0		0.0	0		0.0	0							
26		51		51											0.0	0		0.0	0		0.0	0		0.0	0							
27		0		0											0.0	0		1.1	51	8.2'	0.0	0		0.0	0							
28		0		0											0.0	0		0.0	0		0.0	0		0.0	0							
29		0		0											0.0	0		0.0	0		0.0	0		0.0	0							
30		0		0											0.0	0		0.0	0		0.0	0		0.0	0							
31		0		0											0.0	0		0.0	0		0.0	0		0.0	0							
TOTAL		8,568		8,568			0								0.0	0		0.0	0		0.0	0		0.0	0							
AVG.		276		276											289.5	5,030		78.4	3,538		0.0	0		0.0	0							
MAX.		1,194		1,194											9.3	162		2.5	114		0.0	0		0.0	0							
MIN.		0		0											24.0	420		17.3	774		0.0	0		0.0	0							
															0.0	0		0.0	0		0.0	0		0.0	0							

BACTERIOLOGICAL ANALYSIS

DILUTION METHOD		MEMBRANE FILTER METHOD	
SAMPLES (*Total number*)	SAMPLES (*No. positive*)	SAMPLES (*Total Number*)	AVERAGE COLIFORM DENSITY
28	0	N/A	N/A
10ML PORTIONS (*Number tested*) N/A	10 ML PORTIONS (*No. positive*) N/A		

During the report period, the water supply at this installation X did ___ did not meet minimum requirements of bacteriological quality on the basis of criteria forth in paragraph 12e, AFM 160-4.

DATE: 8 Feb 2013

SIGNATURE-BASE PREVENTIVE MEDICINE SERVICE REPR.

REMARKS

Well C-1 Unable to drawdown with compressor
Well S-6 INOP
Well S-7 INOP

STATIC WATER LEVELS		
DATE	WELL #	DEPTH
*	C-1	*
26-Dec	S-2	110.1
*	S-6	*
*	S-7	*

Monthly Average Equivalent Population

SIGNATURE OF PERSON PREPARING REPORT

TITLE: Water Plant Operator

DATE SUBMITTED: 31 Jan 13

SIGNATURE OF BASE CIVIL ENGINEER

DATE APPROVED: 27 FEB 13

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$$C.D. = \frac{100 \times (\text{Coliform colonies on M.F.})}{\quad}$$

Enter average coliform density which is obtained by adding the computed C.D. of all samples tested and dividing this total by the number of samples tested.

Remarks. Under remarks enter any extraordinary or unusual conditions or circumstances occurring during the month, such as, breakdowns, flooding, drought, unusual water demands, failure of purchased water supply, well failures, etc.

WATER UTILITY OPERATING LOG (GENERAL)

1461

PLANT: North Base | INSTALLATION: Edwards AFB | COMMAND: AFMC | MONTH AND YEAR: DECEMBER 2012

DATE	SOURCE				WATER TREATMENT			CHEMICAL ANALYSIS							PUMPING LOG																	
					TYPE	CHLORINE (Lbs)		TOTAL RESIDUAL CHLORINE							WELL NO.			WELL NO.			WELL NO.			WELL NO.			WELL NO.			WELL NO.		
	PURCHASED WATER	WELL WATER PRODUCED	SURFACED WATER PRODUC	TOTAL WATER (Ac.-Ft.)		PRE	POST	FREE	COMBINED	RESIDUAL CHLORINE	pH			AVEK WATER MOVED TO HOUSING (1,000 Gal)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)	HOURS PUMPED	PRODUCTION (1,000 Gals)	DRAW DOWN (Feet)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF
1	1,049,169			3.22			3			1.0	7.4			520																		
2	710,307			2.18			5			1.0	7.4			468																		
3	759,181			2.33			5			1.0	7.4			400																		
4	759,181			2.33			5			1.0	7.4			480																		
5	713,565			2.19			3			1.0	7.4			400																		
6	651,658			2.00			2			1.0	7.4			440																		
7	811,314			2.49			3			1.0	7.4			460																		
8	492,001			1.51			4			1.0	7.4			510																		
9	1,394,547			4.28			3			1.0	7.4			580																		
10	439,869			1.35			6			1.0	7.4			300																		
11	713,565			2.19			4			1.0	7.5			440																		
12	821,089			2.52			8			1.0	7.5			250																		
13	658,174			2.02			2			1.0	7.5			200																		
14	759,181			2.33			5			1.0	7.5			433																		
15	511,551			1.57			1			1.0	7.5			110																		
16	488,743			1.50			2			1.0	7.5			430																		
17	1,124,109			3.45			4			1.0	7.5			440																		
18	742,890			2.28			5			1.0	7.5			520																		
19	306,279			0.94			3			1.0	7.5			70																		
20	827,605			2.54			3			1.0	7.5			450																		
21	837,380			2.57			3			1.0	7.5			420																		
22	407,286			1.25			2			1.0	7.5			450																		
23	1,150,176			3.53			12			1.0	7.5			250																		
24	355,153			1.09			2			1.0	7.5			410																		
25	707,048			2.17			1			1.0	7.4			10																		
26	628,850			1.93			5			1.0	7.5			0																		
27	680,982			2.09			3			1.0	7.5			640																		
28	306,279			0.94			3			1.0	7.5			25																		
29	974,228			2.99			4			1.0	7.5			550																		
30	576,717			1.77			4			1.0	7.5			140																		
31	615,816			1.89			7			1.0	7.5			440																		
TOTAL	21,973,894			67.44			122							11,236																		
AVG.	708,835			2.18																												
MAX.	1,394,547			4.28																												
MIN.	306,279			0.94																												

Comparison	Start Reading			End Reading			Ac-Ft.
Water Shop	1-Dec-12	7465.92		1-Jan-13	7533.36		67.44
A.V.E.K.	27-Nov-12	7456.89		31-Dec-12	7530.78		73.89

BACTERIOLOGICAL ANALYSIS

DILUTION METHOD		MEMBRANE FILTER METHOD	
SAMPLES (*Total number*)	SAMPLES (*No. positive*)	SAMPLES (*Total Number*)	AVERAGE COLIFORM DENSITY
28	0	N/A	N/A
10ML PORTIONS (*Number tested*)	10 ML PORTIONS (*No. positive*)		
N/A	N/A		

During the report period, the water supply at this installation X did ___ did not meet minimum requirements of bacteriological quality on the basis of criteria forth in paragraph 12e, AFM 160-4.

DATE: 8 Feb 2013

SIGNATURE-BASE PREVENTIVE MEDICINE SERVICE REPR.: [signature]

REMARKS

STATIC WATER LEVELS		
DATE	WELL #	DEPTH

Monthly Average Equivalent Population:

SIGNATURE OF PERSON PREPARING REPORT: [signature]

TITLE: Water Plant Operator

DATE SUBMITTED: 31 Jan 13

SIGNATURE OF BASE CIVIL ENGINEER: [signature]

DATE APPROVED: 27 FEB 13

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Col. S. Drawdown (feet). Enter the drawdown of the well in feet from the water level before pumping to the lowest level during pumping.

Samples (total number). Enter the total number of tap water samples (not portions) tested during the month by the Base Preventive Medicine Service Representative.

Samples (number positive). Enter the total number of tap water samples (not portions) tested during the month which showed three or more positive 10-ml. portions.

10-ml Portions (number tested). Enter total number of 10-ml portions (not samples) from tap water samples which were tested during the month by the Base Preventive Medicine Service Representative.

10-ml. Portions (number positive) Enter the total number of 10-ml. portions (not samples) from tap water samples which were tested during the month by the Base Preventive Medicine Service Representative which showed positive.

Static Water Levels. Record the static water level of each well at least once each month. Well should be rested a sufficient length of time before detremining the static level to enable the water to rise to the actual static level. Enter number of feet below top of casing, or ground level if not cased.

Average Coliform Density. Compute the coliform density (per 100 ml.) for each sample tested during the month by use of the following formula:

$$C.D. = \frac{100 \times (\text{Coliform colonies on M.F.})}{\text{---}}$$

Enter average coliform density which is obtained by adding the computed C.D. of all samples tested and dividing this total by the number of samples tested.

Remarks. Under remarks enter any extraordinary or unusual conditions or circumstances occurring during the month, such as, breakdowns, flooding, drought, unusual water demands, failure of purchased water supply, well failures, etc. *** N-2 not in use**

End. 1550-18
12-31-12

DAILY PUMPING STATION ACTIVITY RECORD

Station AVEK

Installation: Edwards AFB

Month & Year Dec 12

DATE	SHIFT	PUMP NUMBER	PUMP START TIME	PUMP STOP TIME	PUMP HOURS OPERATED	PUMP SUCTION PRESSURE (LBS)	PUMP DISCHARGE PRESSURE	ENGINE NUMBER	ENGINE TACHOMETER READING	ENGINE WATER TEMP	ENGINE OIL TEMP	ENGINE OIL PRESSURE	ENGINE FUEL GALLONS	METERED WATER USE START	METERED WATER USE END	METERED WATER USE GALLONS	METERED POWER USE START	METERED POWER USE END	METERED POWER USE KWH	RESERVOIR SURF LEVEL (FEET)	OPERATOR TIME	OPERATOR INITIALS	CHLORINE USAGE WEIGHT (LBS)	CHLORINE USAGE USED	TREATMENT RESIDUAL CHLROINE	TREATMENT RESIDUAL PH	REMARKS
31														7533.36														
30														7531.47	1.89													
29														7529.70	1.77													
28														7526.71	2.99													
27														7525.77	.94													
26														7523.68	2.09													
25														7521.75	1.93													
24		Pump 2 leaking - off / Isolated Valves for PM's												7519.58	2.17													
23														7518.49	1.09													
22														7514.96	3.53													
21														7513.71	1.25													
20														7511.14	2.57													
19														7508.60	2.54													
18														7507.66	.94													
17														7505.38	2.28													
16														7501.93	3.45													
15														7500.43	1.5													
14														7498.86	1.57													
13														7496.53	2.33													
12														7494.51	2.02													
11														7491.99	2.52													
10														7489.80	2.19													
9														7488.45	1.35													
8														7484.17	4.28													
7														7482.66	1.51													
6														7480.17	2.49													
5														7478.17	2.00													
4														7475.98	2.19													
3														7473.65	2.33													
2														7471.32	2.33													
1														7469.14	2.18													
														7465.92	3.22													
																					0920	JS	120 20		1.0	7.4		
																					1010	JS	120 77	7	1.0	7.4		
																					0519	RS	120 81	4	1.0	7.4		
																					0619	RS	120 86	4	1.0	7.4		
																					0812	RS	120 89	3	1.0	7.4		
																					0832	RS	120 92	3	1.0	7.4		
																					0837	RS	120 97	5	1.0	7.4		
																					0430	ME	120 98	1	1.0	7.4		
																					0530	ME	120 100	2	1.0	7.5		
																					0805	JS	120 112	12	1.0	7.5		
																					0935	JS	120 114	2	1.0	7.5		
																					0837	RS	120 117	3	1.0	7.5		
																					0840	RS	120 120	3	1.0	7.5		
																					1334	RS	120 123	3	1.0	7.5		
																					1403	RS	120 128	5	1.0	7.5		
																					0833	RS	120 132	4	1.0	7.5		
																					0925	JS	120 134	2	1.0	7.5		
																						RS	120 135	1	1.0	7.5		
																					0856	RS	120 140	5	1.0	7.5		
																					1305	ME	120 142	2	1.0	7.5		
																					0823	RS	120 100	8	1.0	7.5		
																					0850	RS	120 104	4	1.0	7.5		
																					1330	ME	120 110	6	1.0	7.5		
																					0945	JS	120 113	3	1.0	7.4		
																					0600	RS	120 117	4	1.0	7.4		
																					630	MHE	120 120	3	1.0	7.4		
																					0941	RS	120 122	2	1.0	7.4		
																					1326	RS	120 125	3	1.0	7.4		
																					0925	HC	120 130	5	1.0	7.4		
																					1430	RS	120 135	5	1.0	7.4		
																					1005	JS	120 140	5	1.0	7.4		
																					0747	RS	120 143	3	1.0	7.4		

December 12 — MONTH — WELL# C-1

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
1							—		—			—	JS	
31							—	0	—	0		—	JS	
30							—	0	—	0		—	RS	
29							—	0	—	0		—	RS	
28							—	0	—	0		—	RS	
27							—	0	—	0		—	RS	
26							—	0	—	0		—	RS	
25							—	0	—	0		—	RS	
24							—	0	—	0		—	ME	
23							—	0	—	0		—	ME	
22							—	0	—	0		—	JS	
21							2784136	0	14278.4	0		0725	JS	well off
20							2780744	3392	14257.5	20.9		1036	RS	
19							2776156	4594	14233.0	24.5		1006	RS	
18							2771951	4199	14209.2	23.8		1010	RS	
17							2767136	4815	14187.6	24.6		0938	RS	
16							2763467	3669	14161.0	23.6		1016	RS	
15							2758798	4669	14134.6	26.4		0730	JS	
14							2754685	4113	14111.4	23.2		820	ME	
13							2751352	3333	14092.3	19.1		1321	RS	
12							—	1758	—	1036		—	RS	
11							—	0	—	0		1013	RS	
10							—	0	—	0		—	RS	
9							—	0	—	0		1000	ME	Well ON
8							—	0	—	0		—	JS	
7							—	0	—	0		—	RS	
6							—	0	—	0		—	MAH	
5							—	0	—	0		—	RS	
4							—	0	—	0		—	RS	
3							—	0	—	0		—	RS	
2							—	0	—	0		—	RS	
1							2733834	0	13988.9	0		—	RS	Well off

MONTH

WELL# C-3

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													ME	
													ME	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													RS	
													JS	
													ME	
													RS	
													RS	
													RS	
													ME	
													JS	
													RS	
													WAH	
													RS	
													RS	
													RS	
													RS	
							1363	0	2.9	0			JS	
													RS	Not in Service

MONTH

WELL# C-4

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
							—		—			0750	JS	
							—	0	—	0		0835	JS	
							—	0	—	0		0733	RS	
							—	0	—	0		0842	RS	
							—	0	—	0		0935	RS	
							—	0	—	0		0942	RS	
25							—	0	—	0		0941	RS	
24							—	0	—	0		0630	MK	
23							—	0	—	0		0930	MK	
22							—	0	—	0		0655	JS	
21							—	0	—	0		0805	JS	
20							—	0	—	0		1042	RS	
19							—	0	—	0		0948	RS	
18							—	0	—	0		0957	RS	
17							—	0	—	0		0917	RS	
16							2275	0	41.2	0		0949	RS	
15							—	7	—	.2		0820	JS	
14							—	0	—	0		840	MK	
13							—	0	—	0		1007	RS	
12							—	0	—	0		1307	RS	
11							—	0	—	0		0952	RS	
10							—	0	—	0		1004	RS	
							—	0	—	0		0930	MK	
							—	0	—	0		0825	JS	
							2268	0	41.0	0		1007	RS	
							—	7		.1		1226	MK	
							—	0	—	0		1054	RS	
							—	0	—	0		0950	RS	
							—	0	—	0		0844	RS	
							—	0	—	0		0937	RS	
							2261	0	40.9	0		0845	JS	
							2254	7	40.7	.2		0859	RS	Auto

MONTH

WELL# S-2

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
							—		—			0725	JS	
							—	0	—	0		0805	JS	
							—	0	—	0		0759	RS	
							—	0	—	0		0910	RS	
							—	0	—	0		1017	RS	
							61127	0	1297.4	0		1409	RS	Draw down
							—	51	—	11		1003	RS	
							—	0	—	0		0530	ME	
							61076	0	1296.3	0		0835	ME	
							—	36	—	18		0685	JS	
							—	0	—	0		0750	JS	
							—	0	—	0		0921	RS	
							—	0	—	0		1019	RS	
							—	0	—	0		1028	RS	
							—	0	—	0		0952	RS	
							—	0	—	0		1018	RS	
							—	0	—	0		0800	JS	
							61041	0	1295.5	0		130	LC	
							60978	62	1294.1	1.4		1023	RS	
							60204	774	1276.8	17.3		1328	RS	
							59916	288	1270.4	6.4		1022	RS	Drawdown
							—	64	—	1.3		1314	RS	
							—	0	—	0		1045	ME	
							59852	0	1269.1	0		0800	JS	
							59706	146	1265.8	4.3		1039	RS	
							57484	222	1254.7	11.8			MAR	
							59096	388	1252.3	2.4		1304	RS	
							58488	608	1238.9	13.4		0841	RS	
							58199	289	1232.4	6.5		0916	RS	
							57848	351	1224.7	7.7		1003	RS	
							—	259	—	5.7		0815	JS	
							57589	0	1219.0	0		1031	RS	TO WINTER

MONTH

WELL# S-3

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
							—		—			—	JS	
							—	0	—	0		—	JS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							1623	0	62.0	0		—	RS	
							—	39	—	1.1		—	RS	Drawdown
							—	0	—	0		—	ME	
							—	0	—	0		—	ME	
							—	0	—	0		—	JS	
							—	0	—	0		—	JS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	JS	
							—	0	—	0		—	LC	
							—	0	—	0		—	RS	
							1584	0	60.9	0		1430	RS	elevated tower
							—	29	—	.8		—	RS	
							1555	0	60.1	0		1309	RS	Drawdown
							—	64	—	1.9		—	ME	
							—	0	—	0		—	JS	
							—	0	—	0		—	RS	
							—	0	—	0		—	MAN	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	JS	
							1491	0	58.2	0		1131	RS	6th SW valve shut

MONTH

WELL# S-4

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
							—		—			—	JS	
							—	0	—	0		—	JS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							2271	0	16.5	0		1241	RS	Drawdown
							—	104	—	1.1		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	ME	
							—	0	—	0		—	ME	
							—	0	—	0		—	JS	
							—	0	—	0		—	JS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
							—	0	—	0		—	RS	
16							—	0	—	0		—	RS	
15							—	0	—	0		—	JS	
14							—	0	—	0		845	KC	
13							2167	0	15.4	0		1310	RS	
12							—	106	—	1.1		—	RS	
11							—	0	—	0		—	RS	
10							—	0	—	0		—	RS	
9							—	0	—	0		—	ME	
8							—	0	—	0		—	JS	
7							—	0	—	0		—	RS	
6							—	0	—	0		—	WLH	
5							—	0	—	0		—	RS	
4							—	0	—	0		—	RS	
3							—	0	—	0		—	RS	
2							—	0	—	0		—	RS	
1							—	0	—	0		—	JS	
							2061	0	14.3	0		—	RS	To 791 total on site

WELL# S-5

MONTH

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
						–		–				0710	JS	
						–	0	–	0			0755	JS	
						–	0	–	0			0744	RS	
						–	0	–	0			0948	RS	
						72585	0	262.8	0			0853	RS	
						–	46	–	.4			0953	RS	
						72489	0	262.4	0			1336	RS	Drawdown
						–	127	–	1.2			0610	ME	
						–	0	–	0			0740	ME	
						–	0	–	0			0600	JS	
						–	0	–	0			0740	JS	
						–	0	–	0			1023	RS	
						–	0	–	0			1088	RS	
						–	0	–	0			1007	RS	
						–	0	–	0			0927	RS	
						–	0	–	0			0958	RS	
						–	0	–	0			0745	JS	
						–	0	–	0			840	NC	
						72362	0	261.2	0			1347	RS	+ Drawdown
						–	108	–	1			1425	RS	
						–	0	–	0			1006	RS	
						–	0	–	0			1338	RS	
						–	0	–	0			1015	ME	
						–	0	–	0			0745	JS	
						–	0	–	0			07	RS	
						–	0	–	0			823,63	MH	
						–	0	–	0			1314	RS	
						–	0	–	0			8930	RS	
						–	0	–	0			0854	RS	
						–	0	–	0			0947	RS	
						–	0	–	0			0800	JS	
						72254	0	260.2	0			1104	RS	Auto 791

MONTH

WELL# S-6

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													ME	
													ME	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													RS	
													JS	
													NC	
													RS	
													RS	
													RS	
													RS	
													ME	
													JS	
													RS	
													MW	
													RS	
													RS	
													RS	
													RS	
													JS	
							835	0	288.2	0			RS	N/S

MONTH

WELL# S-7

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													MF	
													MF	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													JS	
													RS	
													RS	
													RS	
													RS	
													MF	
													JS	
													RS	
													MAN	
													RS	
													RS	
													RS	
													RS	
													JS	
							95443	0	23187	0			RS	N/S

MONTH

WELL# S-10

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
													JS	
													JS	
													RS	
													RS	
							239827	0	3398.4	0			RS	
								74		1.1			RS	Drawdown
								0					RS	
								0					ME	
								0					ME	
								0					JS	
								0					JS	
								0					RS	
								0					RS	
								0					RS	
								0					RS	
								0					RS	
								0					JS	
								0					ME	
								0					RS	
								0					RS	
							239753	0	3397.3	0		1004	RS	Pump out
								77		1.1		1332	RS	Drawdown
								0					ME	
								0		0		0750	JS	
								0		0			RS	
								0		0			MAL	
								0		0			RS	
								0		0			RS	
								0		0			RS	
								0		0			RS	
								0		0			JS	
							239676	0	3396.2	0			RS	to plow tower off at site

MONTH

WELL# T-1

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
													JS	
													JS	
													RJ	
													RS	
													RS	
													RS	
													RS	
													JME	
													JME	
													JS	
													JS	
													RS	
													RS	
													RS	
													RS	
													RS	
													JS	
													JC	
													RS	
													RS	
													RS	
													RS	
													JME	
													JS	
													RS	
													MAN	
													RS	
													RJ	
													RS	
													KS	
													JS	
							169928	0	76	0			DS	NIS

MONTH

WELL# T-2

DATE	OPERATION			WATER LEVEL		DRAW DOWN (FEET)	WATER		POWER		DISCHARGE PRESSURE (LBS)	OPERATOR		REMARKS
	START TIME	STOP TIME	NO HOURS	STATIC	PUMPING		METER READING	GALLONS	METER READING	KWH		TIME	INITIALS	
							–		–			0700	JS	
							–	0	–	0		0745	JS	
							–	0	–	0		–	RS	
							49536	0	234.2	0		0850	RS	
							–	13	–	.4		0945	RS	
							–	0	–	0		0937	RS	
							–	0	–	0		0954	RS	
							–	0	–	0		0600	ME	
							–	0	–	0		0750	ME	
							–	0	–	0		0600	JS	
							–	0	–	0		0735	JS	
							–	0	–	0		1022	RS	
							–	0	–	0		1002	RS	
							–	0	–	60		1011	RS	
							–	0	–	0		0931	RS	
							–	0	–	0		1003	RS	
							–	0	–	0		0735	JS	
							–	0	–	0		830	HC	
							–	2	–	2		1313	RS	
							–	0	–	0		1428	RS	
							–	0	–	0		1010	RS	
							–	0	–	0		1424	RS	
							–	0	–	0		1005	ME	
							–	0	–	0		–	JS	
							–	0	–	0		–	RS	
							–	0	–	0			MAW	
							–	0	–	0		1322	RS	
							–	0	–	0		0934	RS	
							–	0	–	0		0958	RS	
							–	0	–	0		0953	RS	
							–	0	–	0		0750	JS	
							44523	0	233.8	0		1108	RS	Auto 791

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 412TH TEST WING (AFMC)
EDWARDS AIR FORCE BASE CALIFORNIA

Mr. Herbert W. Roraback
412th Test Wing Civil Engineer Division
Environmental Management
Chief, Environmental Quality
5 East Popson Avenue
Edwards Air Force Base, California 93524

FEB 28 2013

Mr. John Morales
Water Resources Control Engineer
California Regional Water Quality Control Board
Lahontan Region – Victorville Branch Office
14440 Civic Drive, Suite 200
Victorville, California 92392

Dear Mr. Morales

Enclosed is the fourth quarter 2012 Monitoring Report for the Main Base Wastewater Treatment Plant (WWTP) as required by Board Order Number 6-01-41. The Waste Discharge Identification Number (WDID) associated with this Board Order is 6B150700001. The report includes Monthly/Quarterly Flow Data, Monthly Freeboard Measurements, Monitoring Well Field Data, Quarterly Influent Results, Monthly/Quarterly Effluent Results, Quarterly Monitoring Well Results, Activated Sludge Monitoring Results, Quarterly Sludge Removal Data, and Total Coliform and Turbidity Data.

Secondary treated effluent was diverted to the evaporation ponds from 11 December through 13 December because the tertiary treatment system was taken out of service for filter media replacement during that time. In addition, new flow meters were installed in December to provide more accurate flow readings. There were no other significant compliance issues to report for the quarter.

Please call Steven Madoski at (661) 277-1411, if you have any questions or require additional information.

Sincerely

Herbert W. Roraback

HERBERT W. RORABACK

NATIONAL O&M, INC.
Water & Wastewater Services

January 7, 2013

412 TW/CEOSS
225 N. Rosamond Blvd.
Edwards AFB, CA 93524

2012 FOURTH QUARTER REPORT
EDWARDS AIR FORCE BASE MAIN TREATMENT PLANT
Order No. 6-01-41 WDID No. 6B150700001

This report is submitted in accordance with the RWQCB Order No. 6-99-33 and 6-01-41. If you have questions regarding this report, please contact us at (540) 492-2332.

We certify under penalty of law that we have personally examined and are familiar with the information submitted in this document. We believe that the information is true, accurate and complete. We are aware that there are significant penalties for submitting false information, including fine and imprisonment.

Paul Bishop 1-7-2013

Paul Bishop
Chief Plant Operator Grade V #7961
Class IV – Edwards Air Force Base Wastewater Treatment Plant
Date

National O & M Inc.

California Regional Water Quality Control Board
Lahontan Region
15428 Civic Drive, Suite 100
Victorville, CA 92392

Facility Name: *Edwards AFB MAIN BASE WWTP*
Address: *Bldg 693 South Jones Road*
Edwards AFB, Ca. 935233

Contact Person: *Paul Bishop*

Job Title: *Chief Plant Operator*

Phone: *540-492-2332*

Email: www.edwardsafb@nationalom.com

WDR/NPDES Order Number: *6-01-41*

WDID Number: *6B150700001*

Type of Report (circle one): **Monthly** **Quarterly** **Semi-Annual** **Annual** **Other**

Month(s) (circle applicable month(s)*:

JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**
JUL	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**

***annual Reports** (circle the first month of the reporting period)

Year: *2012*

Violation(s)? (Please check one): X NO _____ YES*

***If YES is marked complete a-g (Attach Additional information as necessary)**

a) Brief Description of Violation: _____

b) Section(s) of WDRs/NPDES Permit Violated: _____

c) Reported Value(s) or Volume: _____

d) WDRs/NPDES Limit/Condition:

e) Date(s) and Duration of Violation(s):

f) Explanation of Cause(s):

g) Corrective Action(s)
(Specify actions taken and a schedule for actions to be taken)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or require additional information, please contact us at the number provided above.

Sincerely,

Signature: Paul Bishop

Name: Paul Bishop

Title: Chief Plant Operator

ATTACHMENT 1

NATIONAL O & M MONTHLY/QUARTERLY FLOW DATA

CLASS IV – MAIN BASE

WASTEWATER TREATMENT PLANT

EDWARDS AIR FORCE BASE, CALIFORNIA

October 2012

1. Total volume of wastewater flow: **(60.204) 15.521 Million Gallons**
2. Average daily flow rate of wastewater flow: **(1.942) .501 Million Gallons per Day**
3. Total volume of flow to the irrigation disposal area: **16.591 Million Gallons**
4. Total volume of flow to the surface impoundments: **3.089 Million Gallons**
5. Total gallons of septage waste received: **0 Gallons**
6. Total gallons of makeup water received **10.373 Million Gallons**

Note: Items 1 + 6 = reclaimed water supply. Items 3+4 = reclaimed water delivered.

The influent meter reads 1.441 MGD higher than actual. Those numbers are in brackets. Wastewater effluent flows recorded are drawn from two different sources: a direct reading meter that records all effluent flows that includes water that is recirculated for filter backwash and sludge belt press operations, and from calculations to provide data for wastewater effluent flows to such areas as the irrigation ponds and surface impoundments. For these reasons effluent wastewater flow totals will not always agree.

CLASS IV – MAIN BASE

WASTEWATER TREATMENT PLANT

EDWARDS AIR FORCE BASE, CALIFORNIA

November 2012

1. Total volume of wastewater flow: **(52.846) 10.94 Million Gallons**
2. Average daily flow rate of wastewater flow: **(1.762) .365 Million Gallons per Day**
3. Total volume of flow to the irrigation disposal area: **5.416 Million Gallons**
4. Total volume of flow to the surface impoundments: **6.243 Million Gallons**
5. Total gallons of septage waste received: **0 Gallons**
6. Total gallons of makeup water received: **2.379 Million Gallons**

Note: Items 1 + 6 = reclaimed water supply. Items 3+4 = reclaimed water delivered.

The influent meter reads 1.397 MGD higher than actual. Those numbers are in brackets. Wastewater effluent flows recorded are drawn from two different sources: a direct reading meter that records all effluent flows that includes water that is recirculated for filter backwash and sludge belt press operations, and from calculations to provide data for wastewater effluent flows to such areas as the irrigation ponds and surface impoundments. For these reasons effluent wastewater flow totals will not always agree.

CLASS IV – MAIN BASE

WASTEWATER TREATMENT PLANT

EDWARDS AIR FORCE BASE, CALIFORNIA

December 2012

1. Total volume of wastewater flow: **(59.234) 9.839 Million Gallons**
2. Average daily flow rate of wastewater flow: **(1.911) .317 Million Gallons per Day**
3. Total volume of flow to the irrigation disposal area: **5.504 Million Gallons**
4. Total volume of flow to the surface impoundments: **6.151 Million Gallons**
5. Total gallons of septage waste received: **0 Gallons**
6. Total gallons of makeup water received: **3.65 Million Gallons**

Note: Items 1 + 6 = reclaimed water supply. Items 3+4 = reclaimed water delivered.

The influent meter reads 1.594 MGD higher than actual. Those numbers are in brackets. Wastewater effluent flows recorded are drawn from two different sources: a direct reading meter that records all effluent flows that includes water that is recirculated for filter backwash and sludge belt press operations, and from calculations to provide data for wastewater effluent flows to such areas as the irrigation ponds and surface impoundments. For these reasons effluent wastewater flow totals will not always agree.

EDWARDS AIR FORCE BASE

MAIN BASE WASTEWATER TREATMENT PLANT CLASS IV

October-12		
DATE	MAXIMUM	DAILY TOTAL
1	4.610	1.951
2	4.580	2.133
3	4.600	2.083
4	4.680	2.136
5	4.590	2.501
6	4.570	2.026
7	3.040	1.942
8	4.560	2.011
9	4.560	2.018
10	4.500	2.048
11	4.390	1.996
12	4.400	2.222
13	4.400	1.974
14	2.840	1.656
15	2.840	1.614
16	3.020	1.851
17	4.570	2.161
18	4.640	2.261
19	4.620	2.378
20	4.570	1.999
21	2.960	2.070
22	4.380	1.947
23	4.390	1.952
24	4.160	1.839
25	4.180	1.893
26	4.320	1.609
27	4.100	1.749
28	4.060	1.703
29	4.100	1.434
30	2.580	1.530
31	2.580	1.517
Total (MG)		60.204
AVERAGE (MGD)		1.942

November-12		
DATE	MAXIMUM	DAILY TOTAL
1	4.090	1.566
2	2.600	1.701
3	2.600	1.567
4	2.590	1.504
5	4.170	1.541
6	2.590	1.596
7	4.140	1.599
8	4.130	1.609
9	4.130	1.497
10	4.080	1.464
11	2.560	1.418
12	2.740	1.341
13	4.270	1.552
14	4.410	1.890
15	4.480	1.955
16	2.980	2.085
17	2.960	1.969
18	4.370	1.925
19	4.380	1.787
20	2.970	1.969
21	2.990	1.988
22	2.950	1.972
23	3.000	1.833
24	2.990	1.877
25	2.980	1.746
26	4.370	1.847
27	2.980	1.933
28	4.440	1.960
29	4.420	1.990
30	4.470	2.165
Total (MG)		52.846
AVERAGE (MGD)		1.762

December-12		
DATE	MAXIMUM	DAILY TOTAL
1	2.990	1.991
2	2.990	1.837
3	4.450	1.855
4	4.060	2.239
5	4.160	1.671
6	4.390	1.832
7	4.460	2.103
8	2.980	1.961
9	2.910	1.620
10	4.453	1.771
11	4.500	2.133
12	3.010	1.995
13	4.110	2.151
14	4.170	2.397
15	4.350	1.522
16	2.990	1.928
17	4.490	1.852
18	4.440	2.165
19	4.060	2.127
20	2.990	1.906
21	4.450	2.004
22	2.990	1.638
23	2.990	2.604
24	2.800	1.480
25	2.630	1.400
26	2.960	1.759
27	4.480	1.842
28	4.450	1.926
29	2.970	1.944
30	2.880	2.052
31	2.970	1.529
Total (MG)		59.234
AVERAGE (MGD)		1.911