WELL DEVELOPMENT LOG

WELL NAME AND ZONE: BLM-37

DTW PRE-DEVELOPMENT (FT.): 405 (Geophysical Log) DTW POST-DEVELOPMENT SS (FT.): 482.86

DATE	TIME	METHOD	PURGE RATE (GPM)	DELTA VOLUME (GALLONS)	TOTAL VOLUME (GALLONS)	Ph	TEMP (° C)	COND (μMHOS/CM)	TURBIDITY (NTU)	INITIALS	COMMENTS
6/22/99	all day	bail	4 gal/run	124	124					MCG	Water is cloudy-brownish gray.
6/23/99	1200	bail	"	132	256					MCG	"
6/28/99	1215	swab		1,340	1,596					GCG	Screen 4. Water cloudy but looks good.
"	1545	"		1,300	2,896	7.40	28.0	1,058	35.60	GCG	Water relatively clear. Move to screen 3.
"	1700	"		80	2,976					MGC	Screen 4.
"	1830	"		350	3,326					MGC	Screen 3.
6/29/99	0915	swab		600	3,926					MGC	Screen 3. Water is brownish, not very turbid.
"	1200	"		1,200	5,126					MGC	Per Alfred.
7/2/99	1245			0	5,126					GCG	Tripping up to screen 2.
"		swab		150	5,276					MGC	Screen 2 per Alfred.
7/7/99	1630	swab		25	5,301					MGC	"
7/8/99	0915	swab		0	5,301					MGC	Screen 1 (top).
"	1530	jet		6,400						MGC	"
"	1800	"		6,400						MGC	Screen 2.
7/9/99	0745	jet		6,400						LHM	Preparing to trip down to screen 3. Screen 3.
"	1800	"		6,400						LHM	Screen 4.
7/10/99	1645	pump		0	5,301					LHM	Screen 1. 140791 beginning meter reading.
"	1800	end		150	5,451					LHM	140941
7/11/99	0735	pump		116	5,567					LHM	141057
"	0845	"		171	5,738	7.30	26.2	1,006	2.84	LHM	141228
"	1125	"		452	6,190	7.29	26.4	1,008	1.83	LHM	141680
"	1330	"		365	6,555	7.52	26.7	990	1.92	LHM	142045. Water clear.

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7/11/99	1430	end		154	6,709					LHM	142199. Tripped out to move to 700-H.
7/13/99	0645	pump		0	6,709					MGC	142199 resume pumping screen 1.
"	1510	"		226	6,935	7.46		960	1.29	MGC	142425. Many air bubbles.
"	1800	end		459	7,394					MGC	142884
7/14/99	0645	pump	3	0	7,394					MGC	142884
"	1050	"	"	631	8,025				1.44	MGC	143515. Many air bubbles in discharge.
"	1635	"	"	944	8,969				0.48	MGC	144459
"	1815	end	"	300	9,269					MGC	144759
7/15/99	0645	pump	"	0	9,269					MGC	144759
"	1651	end	"	1,661	10,930					MGC	146420
7/16/99	0930	pump	"	0	10,930					GCG	146420
"	1430	end	"	789	11,719					GCG	147209
7/19/99	0835	pump	3	0	11,719					GCG	147209
"	1410	end	"	838	12,557					GCG	148047
7/20/99	0645	pump	3	0	12,557					MGC	
"	1645	"	"	1,601	14,158	7.24	26.7	970		MGC	149648. Water very clear with air bubbles.
"	1650	end	"	21	14,179					MGC	149669. Zone developed.
7/21/99	0800	pump	6	0	14,179					MGC	149669. Begin pumping screen 2.
"	0839	"	"	191	14,370				2.20	MGC	149860
"	1830	end	"	3,503	17,873					MGC	153363
7/22/99	0645	pump	6	0	17,873					MGC	153363
"	0835	"	"	590	18,463				1.20	MGC	153953

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7/22/99	1610	pump	6	2,789	21,252	7.20	27.0	973	1.10	MGC	156742. 9,000 gallon goal for Screen 2.
"	1830	end	"	782	22,034					LHM	157524. Water very clear.
7/23/99		pump	6	0	22,034					LHM	157524
"	0915	"	"	901	22,935		28.5	949	0.92	LHM	158425
"	1125	end	"	788	23,723					LHM	159213. Zone developed.
7/24/99	1235	pump	6	277	24,000	7.06	28.4	984	4.46	MEM	159213. Begin pumping screen 3.
"	1335	"	"	307	24,307	7.40	28.2	968	1.23	MEM	159797
"	1510	"	"	603	24,910	7.50	28.5	960	0.80	MEM	160400
"	1605	"	"	330	25,240	7.50	28.5	963	0.54	MEM	160730
"	1740	"	"	580	25,820	7.50	28.5	958	0.31	MEM	161310
7/25/99	0850	pump	6	802	26,622	7.40	28.0	960	0.40	GCG	162112
"	1400	"	"	1,888	28,510	7.40	28.8	941	0.42	GCG	164000
"	1700	"	"	1,055	29,565	7.40	29.0	945	0.37	GCG	165055
7/26/99	1220	pump	8	2,205	31,770	7.40	28.5	975	0.62	GCG	167260. Flow rate has improved to 8 gpm.
"	1845	end	"	1,059	32,829					MGC	168319. Zone developed.
7/27/99	1100	pump	22	0	32,829					MGC	Screen 4. Start pump (new pump).
"	1230	"	"	1,980	34,809	7.19	28.8	972	1.39	MGC	170100
"	1235	"	"	0	34,809					MGC	
"	1445	"	"	0	34,809					MGC	Changed flow meter.
"	1530	"	"	0	34,809	7.41	29.0	922	0.57	MGC	
"	1615	"	"	4,845	39,654					MGC	Pump off and pulled. Estimated total volume.
"		end	"	2,720	42,374					LHM	Final volume estimated by M. Canavan.

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8/16/99	Camer logged well following removal of ~20' sand. Water is turbid. Additional development necessary.									GCG	We will develop ~1,000 gal. from each screen.
8/19/99	0700	pump	8	0	42,374					GCG	Screen 4. Extra development.
"	1500	end	"	3,840	46,214					GCG	"
8/23/99	1000	pump	8	0	46,214					GCG	48510. Screen 3. Extra develop. Water clear
"	1010	"	"	180	46,394	7.28	27.0	1,036	5.92	GCG	48690
"	1330	end	"	1,848	48,242					GCG	50538
"	1400	pump	10	0	48,242					GCG	50538. Screen 2. Extra develop. Water clear.
"	1430	"	"	514	48,756	7.46	28.1	931	1.39	GCG	51052
"	1800	end	"	556	49,312					GCG	Per Alfred.
8/23/99	all day	pump		1,004	50,316					MGC	Screen 1. Extra development.