CH2MHILL

PROJECT NUMBER: 335392.FI.01

WELL ID:

WELL DEVELOPMENT LOG

PROJECT: Omega Chemical OU-2 LOCATION: MW26-A 2/27/07

DEVELOPMENT CONTRACTOR: WDC

DEVELOPMENT METHOD AND EQUIPMENT USED: BAILER, SWAB, PUMP

START WATER LEVELS: 68.20' w/PUMP IN WELL START: 0950 END: 1300

MAXIMUM DRAWDOWN DURING PUMPING: 1' BTC

RANGE AND AVERAGE DISCHARGE RATE: 3gpm LOGGER: M. Ladeau

TOTAL QUANTITY OF WATER DISCHARGED: 500 gallons

DISPOSITION OF DISCHARGE WATER: BIN HMT 217L

MONITORING EQUIPMENT USED: YSI 556MPS / HACH TURBIDIMETER V= 17.5 gallons

Time	Volume Discharged (gal)	Flow Rate (gpm)	Water Level (ft BTOC)	Turbidity (NTU)	Temp. (°C)	pH	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Remarks (color, odor, sheen, sediment, etc.)
0953	9	3	68.20	71000						VERY TURBID.
0955	15			71000	21.9	7.08	1720			
0959	27		68.70	406	23.2	6.98	1642			CLOUDY NO ODORS
1009	57			75.8	23.6	6.86	1617	79.1	3.5	CLEARING
1019	87		69.20	11.0	23.83	7.17	1741	80.2	3.03	CLEAR
1025	MOVE INTAKE TO 78' BTC									
1029	117			8.22	23.81	7.17	1742	81.7	2.72	CLEAR
1039	147			2.04	24.38	7.09	1764	74.0	3.09	CLEAR
1042	SURGE WELL.									
1045	PUMP ON.									
1049	168		68.80	32.4	24.43	7.11	1767	112.9	3.18	CLEAR
1059	198			34.4	24.65	7.07	1781	104.7	3.16	CLEAR
1109	228			4.41	24.69	7.03	1774	102.6	3.25	CLEAR
1112	PUMP OFF SURGE WELL MOVE INTAKE TO 82' BTC									
1120	PUMP ON.									
1129	267			16.9	24.76	7.12	1776	145.1	3.41	CLEAR
1139	297		68.6	20.7	24.67	7.01	1782	134.4	2.57	CLEAR
1149	327			11.9	24.66	7.01	1779	132.9	2.48	CLEAR
1159	357			4.96	24.74	6.97	1782	128.1	2.61	CLEAR
1200	SURGE WELL									
1203	PUMP ON									
1209	375		68.4	16.6	24.67	6.96	1773	149.7	2.86	CLEAR
1219	405			24.7	24.58	6.97	1770	142.5	2.29	CLEAR
1229	435			33.8	24.66	7.06	1782	132.6	2.78	CLEAR
1239	465		68.4	29.3	24.64	7.02	1776	134.6	2.62	CLEAR
1249	495			8.25	24.62	7.00	1771	134.2	2.61	CLEAR
1255	COLLECT SAMPLES FROM WELL OC2-MW26A-W-0-452									
1318	FINAL DTW = 70.50 BTC									

WellDevLog.xls

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PROJECT NUMBER 335392.FI.01

WELL ID

WELL DEVELOPMENT LOG

PROJECT: Omega Chemical OU-2 LOCATION: MW26-B 2/28/07

DEVELOPMENT CONTRACTOR: WDC

DEVELOPMENT METHOD AND EQUIPMENT USED: BAIL, SWAB, PUMP

START WATER LEVELS: 68.73 START: 0725 END: 1200

MAXIMUM DRAWDOWN DURING PUMPING: 1' BTC

RANGE AND AVERAGE DISCHARGE RATE: 2gpm LOGGER: M. Ladeau

TOTAL QUANTITY OF WATER DISCHARGED: 350 gallons

DISPOSITION OF DISCHARGE WATER: BIN HMT 217L

MONITORING EQUIPMENT USED: YSI 556 MPS / HACH TURBIDIMETER

Time	Volume Discharged (gal)	Flow Rate (gpm)	Water Level (ft BTOC)	Turbidity (NTU)	Temp. (°C)	pH	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Remarks (color, odor, sheen, sediment, etc.)
0800	PUMP	ON		2gpm						VERY TURBID
0805	10	2	68.8	977	21.51	7.21	1631	233.4	3.91	CLOUDY
0810	20			93.9	21.76	7.21	1635	160.7	2.83	CLEARING NO ODORS
0820	40		68.9	20.9	21.80	7.16	1624	150.5	2.55	CLEAR
0830	60			54.2	21.87	7.13	1620	150.1	2.55	CLEAR
0840	80			5.78	21.90	7.09	1615	150.5	2.61	CLEAR
0850	100		68.8	5.13	21.88	7.09	1615	149.7	2.62	CLEAR
SURGE WELL				PUMP OFF						
0858	PUMP ON									
0900	105			111	21.99	7.10	1619	149.2	2.86	CLOUDY
0905	115			30.3	21.90	7.10	1614	148.5	2.60	CLEAR
0915	135			12.8	21.89	7.08	1612	149.5	2.57	CLEAR
0925	155			47.1	21.93	7.08	1610	149.2	2.77	CLEAR
0935	175			8.41	22.02	7.08	1613	149.8	2.83	CLEAR
	MOVE PUMP INTAKE TO 113' BTC.									
0940	185			>1000	22.09	7.09	1615	148.6	2.60	CLOUDY
0955	215		68.9	29.1	21.99	7.09	1607	150.2	2.80	CLEAR
1005	235			8.18	22.05	7.10	1610	149.9	2.80	CLEAR
	SURGE WELL			PULL PUMP		AND	CHANGE WATER IN PUMP			
1037	PUMP	ON								
1040	245	2	69.0	649	22.02	7.08	1615	151.1	2.54	CLOUDY
1050	265			14.6	22.05	7.09	1611	151.2	2.51	CLEAR
1100	285			13.3	22.08	7.07	1609	151.9	2.64	CLEAR
1110	305			5.56	22.05	7.10	1605	151.7	2.65	CLEAR
	PUMP OFF			SURGE WELL			LOWER PUMP			INTAKE TO 118' BTC
1125	PUMP ON.									
1127	310			94.6	22.14	7.10	1607	151.8	2.70	CLOUDY
1137	330		69.8	3.34	22.14	7.07	1606	152.4	2.75	CLEAR
1140	SURGE WELL			PUMP OFF.						
1148	PUMP ON									
1150	335			34.0	22.09	7.11	1604	153.0	2.88	CLEAR
1155	345		69.8	7.19	22.06	7.07	1602	152.8	2.78	CLEAR
1158	PUMP OFF			DONE w/ DEVELOPMENT						

WellDevLog.xls

CH2MHILL

PROJECT NUMBER: 335392.FI.01

WELL ID:

WELL DEVELOPMENT LOG

PROJECT: Omega Chemical OU-2 LOCATION: MW26C 3/1/07

DEVELOPMENT CONTRACTOR: WDC

DEVELOPMENT METHOD AND EQUIPMENT USED: BAIL, SWAB, PUMP

START WATER LEVELS: START: 0720 END:

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE: 2gpm LOGGER: M. Ladeau

TOTAL QUANTITY OF WATER DISCHARGED:

DISPOSITION OF DISCHARGE WATER: TANK # HMT 217L

MONITORING EQUIPMENT USED: YSI 556MPS / HACH TURBIDIMETER

Time	Volume Dischared (gal)	Flow Rate (gpm)	Water Level (ft BTOC)	Turbidity (NTU)	Temp. (°C)	pH	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Remarks (color, odor, sheen, sediment, etc.)
	SET PUMP INTAKE AT 90' BTC TO REMOVE DRILL FLUID									
0727	DTW = 75.1 w/ PUMP @ 90' BTC. PUMP ON.									
0729	WATER LEVEL @ 88' PUMP OFF. MOVE INTAKE TO 120' BTC.									
0733	PUMP ON @120' BTC DTW = 90.6' BTC.									
0742	25	2	90.6	>1000	21.84	7.48	1552	156.7	3.47	VERY MUDDY
0745	PUMP OFF MOVE INTAKE TO 150' BTC.									
0750	PUMP ON									
0755	45	2	89.2	>1000	21.59	7.35	1525	158.9	1.53	CLOUDY
0800	55			352	22.01	7.34	1531	157.2	1.53	CLEARING
0805	65			184	21.99	7.30	1525	160.3	1.55	CLEARING
0815	85		91.5	176	21.98	7.31	1521	159.1	1.52	CLEARING
0825	105			94.0	22.09	7.30	1522	158.9	1.55	CLEARING
0835	125		92.4	212	22.08	7.29	1525	158.3	1.46	CLOUDY
0845	145		92.6	90.2	22.16	7.28	1527	157.7	1.48	CLEARING
0855	165			72.7	22.10	7.29	1522	157.1	1.49	CLEAR
0905	185		92.6	40.0	22.19	7.28	1525	157.2	1.58	CLEAR
0915	205			27.8	22.19	7.27	1524	157.8	1.51	CLEAR
0925	225			52.2	22.20	7.26	1525	154.4	1.45	CLEAR
0926	PUMP OFF SURGE WELL PULL PUMP AND CHANGE WATER IN PUMP.									
0950	PUMP ON.			>1000	22.26	7.28	1543	154.9	1.50	VERY TURBID.
0955	235		89.9	402	22.28	7.26	1537	156.1	1.47	CLOUDY
1000	245			124	22.27	7.26	1531	155.8	1.50	CLEARING
1010	265	2	90.1	57.0	22.28	7.24	1525	156.9	1.51	CLEAR
1020	285			58.1	22.26	7.24	1521	156.8	1.51	CLEAR
1030	305			32.1	22.32	7.23	1531	157.3	1.59	CLEAR
1040	325	2		37.6	22.29	7.22	1530	157.7	1.70	CLEAR
1050	345		91.1	22.8	22.28	7.19	1528	158.8	1.70	CLEAR
1100	365			20.9	22.33	7.17	1530	160.0	1.62	CLEAR
1102	MOVE PUMP INTAKE TO 155' BTC.									
1110	385			31.4	22.32	7.17	1526	158.7	1.65	CLEAR
1120	405			19.0	22.36	7.16	1528	159.8	1.65	CLEAR
1121	PUMP OFF SURGE WELL.									
1128	PUMP ON									
1130	410			690	22.52	7.16	1553	155.7	1.68	CLOUDY
1140	430			38.1	22.38	7.26	1527	157.1	1.62	CLEARING
1150	450			43.6	22.39	7.30	1525	156.9	1.65	CLEAR
1200	470			44.1	22.40	7.32	1522	157.6	1.69	CLEAR

CH2MHILL

PROJECT NUMBER 335392.FI.01

WELL ID 2of2

WELL DEVELOPMENT LOG

PROJECT : Omega Chemical OU-2 LOCATION : MW26C 3/1/07

DEVELOPMENT CONTRACTOR : WDC

DEVELOPMENT METHOD AND EQUIPMENT USED : BAIL, SWAB, PUMP

START WATER LEVELS : START : END : 1230

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE: LOGGER : M. Ladeau

TOTAL QUANTITY OF WATER DISCHARGED: 520 gallons

DISPOSITION OF DISCHARGE WATER:

MONITORING EQUIPMENT USED:

Time	Volume Dischared (gal)	Flow Rate (gpm)	Water Level (ft BTOC)	Turbidity (NTU)	Temp. (°C)	pH	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Remarks (color, odor, sheen, sediment, etc.)
1210	490	2		23.9	22.42	7.23	1525	159.6	1.68	CLEAR
1212	MOVE		INTAKE	TO	160'	BTC.				
1220	510		90.8	27.5	22.50	7.26	1521	159.1	1.64	CLEAR
1224	PUMP		OFF.	DONE	W/	DEVELOPMENT		OF		MW26C

WellDevLog.xls

CH2MHILL

PROJECT NUMBER: 335392.FI.01

WELL ID:

WELL DEVELOPMENT LOG

PROJECT: Omega Chemical OU-2 LOCATION: MW26D 3/2/07

DEVELOPMENT CONTRACTOR: WDC

DEVELOPMENT METHOD AND EQUIPMENT USED: BAIL, SWAB, PUMP

START WATER LEVELS: 74.20 START: 0750 END: 1200 74.10

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE: 2gpm LOGGER: M. Ladeau

TOTAL QUANTITY OF WATER DISCHARGED:

DISPOSITION OF DISCHARGE WATER: TANK # HMT 217L

MONITORING EQUIPMENT USED: YSI 556 MPS / HACH TURBIDIMETER

Time	Volume Dischared (gal)	Flow Rate (gpm)	Water Level (ft BTOC)	Turbidity (NTU)	Temp. (°C)	pH	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Remarks (color, odor, sheen, sediment, etc.)
0750	SET PUMP @ 100' BTC PUMP ON.									
0830	SET PUMP @ 170' BTC TO PUMP OUT FLUIDS.									
0858	SET PUMP INTAKE @ 190' BTC. PUMP ON.									
0900	100			>1000	21.33	5.90	481	42.4	1.24	CLOUDY
0910	120			317	22.19	6.55	488	0.8	0.08	CLEARING
RECALIBRATED PH & ORP METER DUE TO STRANGE READINGS.										
0920	140	2		114	22.09	7.94	484	55.4	0.39	CLEARING
0930	160			93.4	22.16	7.90	484	32.2	0.08	CLEARING.
0940	180			116	22.17	7.84	486	27.3	0.05	CLEARING
0950	200			62.2	22.31	7.87	482	23.5	0.04	CLEAR
1000	220			28.6	22.28	7.86	481	21.2	0.04	CLEAR
SURGE WELL PUMP OFF										
1006	PUMP ON.									
1010	240			27.3	22.21	7.82	478	36.2	0.33	CLEAR
1020	260			20.8	22.34	7.79	479	26.5	0.06	CLEAR
1030	280			12.5	22.37	7.83	478	21.8	0.05	CLEAR
MOVE PUMP INTAKE TO 200' BTC.										
1035	PUMP ON									
1040	290			58.0	22.39	7.71	493	24.8	0.04	CLEARING
1050	310			26.3	22.41	7.85	482	21.5	0.03	CLEAR
1100	330			16.7	22.37	7.87	480	19.3	0.04	CLEAR
PUMP OFF SURGE WELL.										
1103	PUMP ON.									
1110	350			26.2	22.40	7.81	478	22.8	0.04	CLEAR
1120	370			65.4	22.39	7.80	476	20.9	0.03	CLEAR
1130	390			69.2	22.40	7.79	477	19.7	0.03	CLEAR
1140	410			44.2	22.45	7.77	477	19.3	0.02	CLEAR
1150	430			38.0	22.43	7.78	476	16.6	0.02	CLEAR
PUMP OFF DONE W/ DEVELOPMENT.										