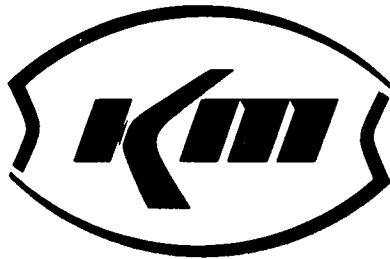


KERR-McGEE CORPORATION



THIRD QUARTER PERFORMANCE REPORT
CHROMIUM MITIGATION PROGRAM
KERR-McGEE CHEMICAL CORPORATION
HENDERSON, NEVADA

OCTOBER 28, 1988

Engineering Services

THIRD QUARTER PERFORMANCE REPORT
CHROMIUM MITIGATION PROGRAM
KERR-McGEE CHEMICAL CORPORATION
HENDERSON, NEVADA

OCTOBER 28, 1988

Submitted in Accordance with:
Chromium Mitigation Program
Consent Order

Prepared by:

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ENVIRONMENTAL
PROTECTION

THIRD QUARTER 1988 PERFORMANCE REPORT
CHROMIUM MITIGATION PROGRAM
KERR-McGEE CHEMICAL CORPORATION
HENDERSON, NEVADA

INTRODUCTION

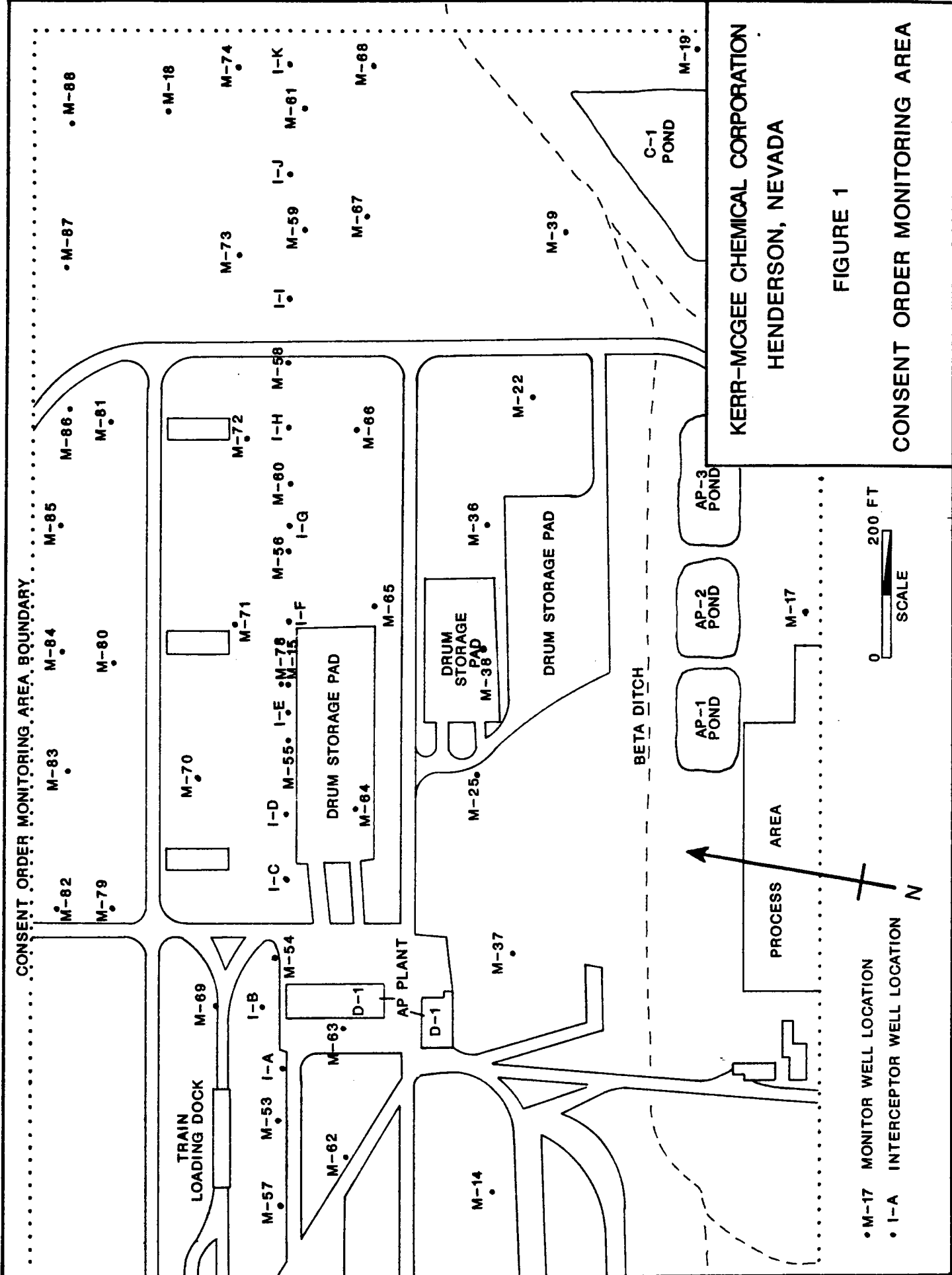
In accordance with the Consent Order for cleanup of chromium contaminated groundwater at the Henderson facility, finalized September 9, 1986, Kerr-McGee Chemical Corporation submits quarterly performance reports to the Nevada Department of Environmental Protection. Quarterly reports include performance data on the groundwater treatment plant and evaluation of the interceptor system effectiveness. This submittal reports results of the chromium mitigation program for the third quarter of 1988.

GROUNDWATER SURFACE CONFIGURATION

Figure 1 illustrates the chromium treatment system monitoring area as defined in Appendix D of the Consent Order, and shows the locations of all groundwater interceptor and monitor wells installed by KMCC within this area. Appendix A of this report presents an inventory of all wells installed by Kerr-McGee at this facility. Appendix B lists all groundwater elevations recorded since September 1987 in wells within the consent order area. Appendix C graphically presents the drawdown configuration during the third quarter, 1988, reflecting monthly water level measurements.

Figure C-1 illustrates the potentiometric surface within the consent order monitoring area in July, based on data recorded July 14, 1988. Figure C-2 presents a cross-section of the interceptor line, illustrating the drawdown on that date. This drawdown is a result of continuous pumping of the interceptor wells. The static water level shown on Figure C-2 represents the reference elevation recorded on September 14, 1987, just prior to the startup of the groundwater recovery system. Figures C-3 and C-4 present a potentiometric surface map and cross-section for water level data recorded August 6, 1988. Figures C-5 and C-6 present water level data recorded September 3, 1988.

Groundwater elevations listed in Appendix B show that water levels throughout the consent order monitoring area have begun to stabilize since the discharge of water to the beta ditch was



discontinued in November, 1987. Figures C-1 through C-6 show the reconfiguration of the potentiometric surface as groundwater levels throughout the monitoring area respond to the regional water table returning to static conditions with no upgradient recharge from the ditch.

CONTINUOUS WATER LEVEL RECORDERS

Wells M-78 and M-80 (Figure 1) are equipped with continuous water level recorders. Appendix D contains copies of the recorder charts obtained during the second quarter of 1988. These charts reflect the slowdown in the water level decline that began following cessation of cooling water discharge to the beta ditch on November 13, 1987. During the third quarter, water levels began to stabilize in well M-80 (near the recharge trench), and declined approximately 1.5 feet in well M-78, located in the interceptor line. This rate of decline is approximately half of that recorded during the second quarter. Water levels continue to decline at this time, but at a decreasing rate.

INTERCEPTOR SYSTEM PERFORMANCE

Figures C-1 through C-6 indicate the minor changes that have occurred in the interceptor area during the third quarter. Figures C-2, C-4, and C-6 show graphically that drawdown consistently exceeded one foot throughout the interceptor area, relative to static levels recorded September 14, 1987.

The localized minor changes seen in the potentiometric surface are due to transient changes in the discharges of individual wells. The groundwater mound created at the recharge trench is becoming more distinct as the program continues and is believed to reflect the reduction in saturated thickness of the alluvial aquifer in this area.

One data point is missing from the September potentiometric surface map and cross-section. The groundwater elevation at well M-60 has been excluded. From Appendix B, it can be seen that the reported water elevation at this location is 1729.33. This does not seem reasonable when compared with other groundwater elevations in the area, or with historical groundwater surface elevations at the same location. Since groundwater levels in both I-G and I-H, the interceptor wells located on either side of monitor well M-60, were at historical lows, there is no justification for M-60 to exhibit such a high groundwater elevation under steady operating conditions. For these reasons, this data point has been excluded from Figures C-5 and C-6.

As was reported in the Second Quarter Progress Report, a second (backup) electrolytic cell had been installed in the treatment system. The purpose for including a second electrolytic cell was to preclude the necessity of shutting down the treatment plant, along with all the wells, each time the electrodes needed to be changed. The installation of the second cell required addition of 2" pipe and fittings. The feed pump was then unable to overcome the increase in head and friction required to maintain the established flow rate. The discharge rates of wells I-H, I-I, I-J, and I-K were reduced to balance the treatment plant feed rate with pump capacity. Cutback of the subject wells was based on Figure C-6 in the Second Quarter Progress Report, which indicates that drawdown (referenced to September, 1987 levels) in the vicinity of these wells is the greatest, and that minimal impact to containment efficiency would result. KMCC plans to replace the 2" piping between the feed tank and electrolytic cells with 3" pipe. This should reduce the head loss in this portion of the system to allow the pump to increase the feed rate of treatment water to the cells. Interceptor wells I-I, I-J, I-K, and I-C will each be adjusted to increase their discharge rates, which will reestablish the effectiveness of the interceptor system at those points, as well as the barrier effect of the groundwater recharge mound. Table 1 lists each recovery well, its initial discharge rate, and its current discharge rate.

In addition, the Timemark unit installed on well I-C, which shuts off the pump in the event the well pumps dry, malfunctioned and

TABLE 1
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 INTERCEPTOR WELL DISCHARGE RATES

WELL #	SEP. 14 1987	OCT. 1 1988	PROPOSED DEC. 1988
I-A	2.0	4.0	4.0
I-B	2.0	2.5	2.5
I-C	2.5	5.0	7.0
I-D	20.0	23.0	23.0
I-E	5.0	2.2	2.2
I-F	30.0	21.0	21.0
I-G	7.0	4.2	4.2
I-H	8.0	2.8	2.8
I-I	15.0	15.0	17.5
I-J	10.0	5.9	8.5
I-K	10.0	5.7	8.5
	-----	-----	-----
TOTAL	113.5	91.3	101.2

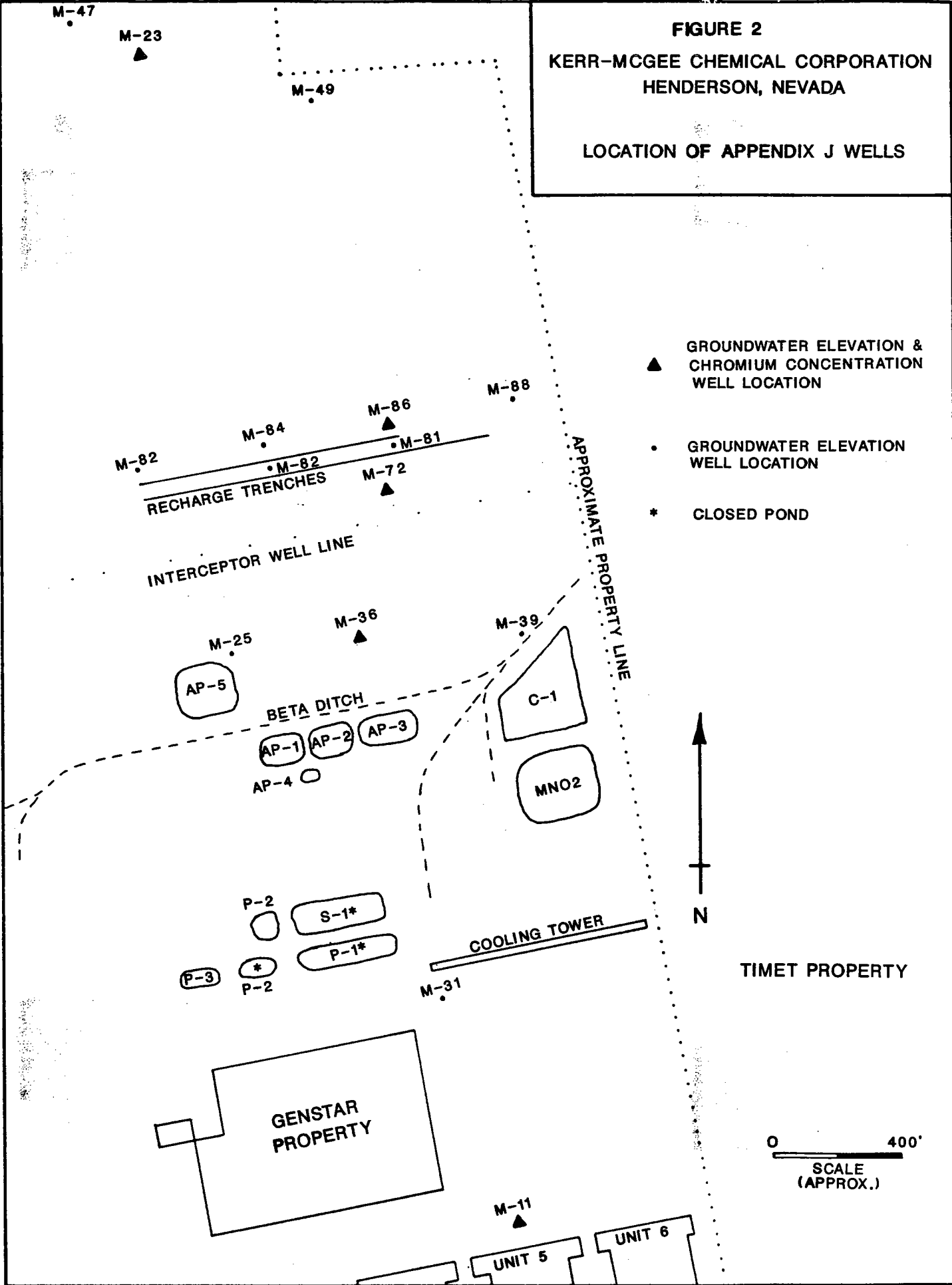
did not pump consistently for a protracted period of time. This is the reason well I-C represents such relatively high levels during the third quarter. The unit has been repaired, and subsequent potentiometric surface maps and cross sections should reflect normal operation.

IMPACT OF DISPOSAL SYSTEM ON WATER LEVELS

Appendix J of the Consent Order, the Disposal System Contingency Plan, identifies specific monitor wells that are to be utilized to evaluate the impact of the downgradient recharge of treated water into the groundwater. In addition, Kerr-McGee Chemical Corporation identified wells in Appendix J that would be sampled and analyzed for chromium on a quarterly basis. Figure 2 illustrates the location of the Appendix J wells.

Appendix B of this report shows that groundwater elevations are stabilizing in the Appendix J monitor well area downgradient from the disposal system (M-47, M-23, and M-49), and are lower than when monitoring began in December. No surface wetting downgradient from the disposal trenches has been observed. KMCC is confident that there exists no undesirable impact to groundwater elevations downgradient from the reinjection trench area.

FIGURE 2
KERR-MCGEE CHEMICAL CORPORATION
HENDERSON, NEVADA
LOCATION OF APPENDIX J WELLS



CHROMIUM TREATMENT SYSTEM EFFECTIVENESS

Table 2 lists treatment plant feed and discharge flow data for the period April 1, 1988 through June 30, 1988. Table 2 shows that there have been no violations of the discharge limits for either total or hexavalent chromium during the third quarter of 1988.

An independent analysis of the effectiveness of the groundwater treatment system in reducing chromium levels in the groundwater is provided in the Appendix J wells located downgradient from the intercepted groundwater plume. Hexavalent chromium levels in the five wells specified for sampling for chromium concentration are displayed in Table 3. Figures 3 through 7 graphically portray the changes in concentration with time.

Well M-11 was selected as an Appendix J well because it contained the highest concentration of chromium in investigations prior to interceptor system construction. Figure 3 shows a decline in the chromium concentration in this well with time; the increase seen in the September, 1988 data reflects the leaching effect of a heavy precipitation event that occurred August 29, 1988. Well M-36, located approximately 350 feet upgradient from the interceptor line, shows chromium concentration increasing with time (Figure 5). This is due in great part to the elimination of a source of fresh water upgradient from this well (cooling water discharge to the beta ditch) and partly to the movement of the plume toward the interceptor line. The trend

TABLE 2
GROUNDWATER TREATMENT ANALYSIS
CHROMIUM MITIGATION PROGRAM
HENDERSON, NEVADA

WEEK OF	VOLUME TREATED (M gal.)	FEED CHROMIUM (mg/l)	TREATED TOTAL (mg/l)	EFFLUENT HEXAVALENT (mg/l)
Jul. 2 - Jul. 8	992	2.22	0.62	0.006
Jul. 9 - Jul. 15	1008	2.71	0.032	0.013
Jul. 16 - Jul. 22	995	2.84	0.018	0.0022
Jul. 23 - Jul. 29	1047	2.82	0.020	0.014
July, 1988 Average		2.65	0.173	0.0088
Jul. 30 - Aug. 5	919	2.93	0.020	0.006
Aug. 6 - Aug. 12	1014	3.05	0.022	0.0032
Aug. 13 - Aug. 19	1037	2.97	0.036	0.0028
Aug. 20 - Aug. 26	1055	2.94	0.020	0.0022
Aug. 27 - Sep. 2	1033	2.92	0.030	0.0087
August, 1988 Average		2.96	0.0256	0.0046
Sep. 3 - Sep. 9	964	3.02	0.0167	0.0037
Sep. 10 - Sep. 16	906	3.07	0.0160	0.001
Sep. 17 - Sep. 23	979	3.03	0.028	0.001
Sep. 24 - Sep. 30	871	3.25	0.020	0.0025
September, 1988 Average		3.138	0.020	0.0021

FIGURE 3

APPENDIX J WELL CHROMIUM CONCENTRATION

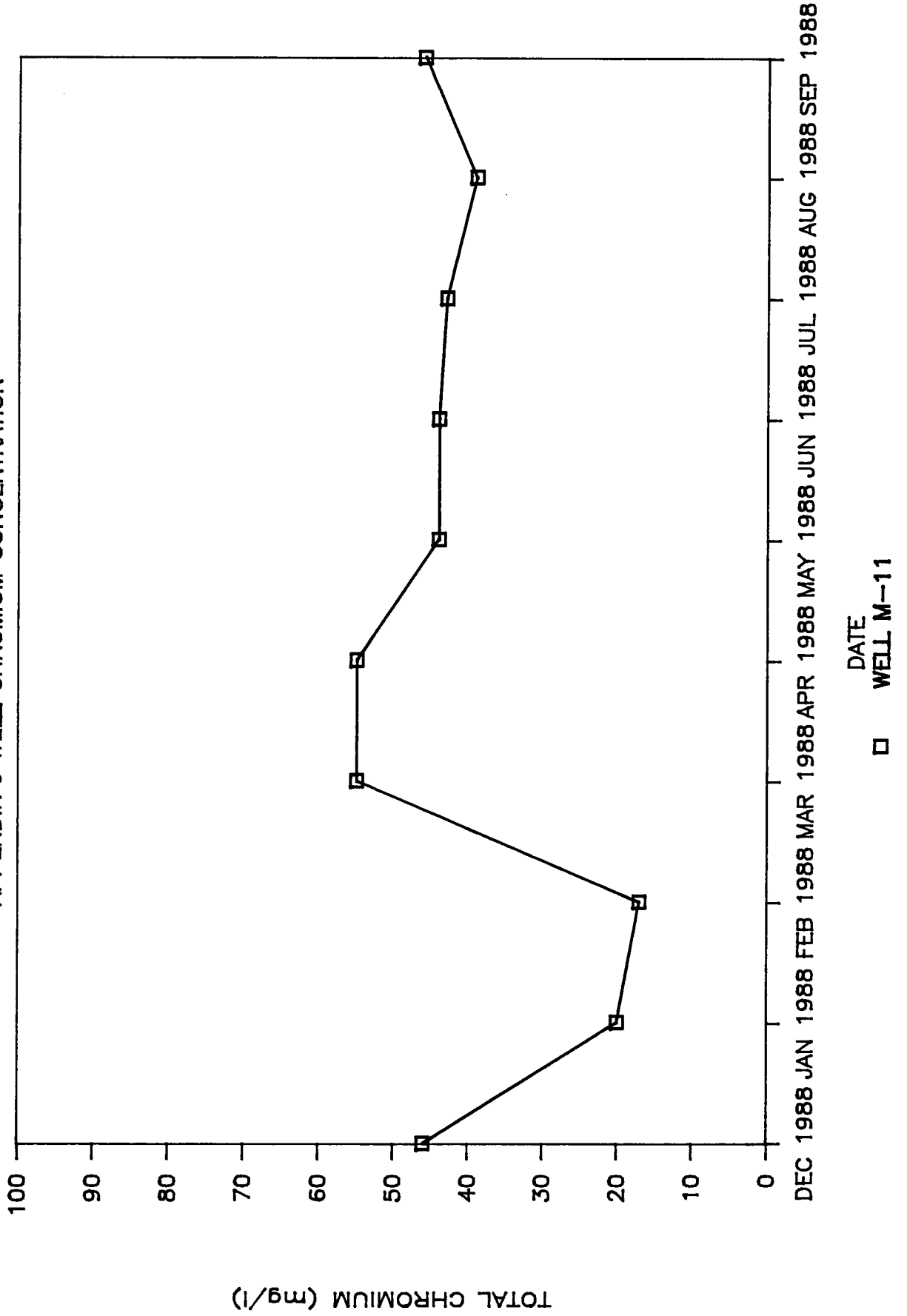


FIGURE 4

APPENDIX J WELL CHROMIUM CONCENTRATION

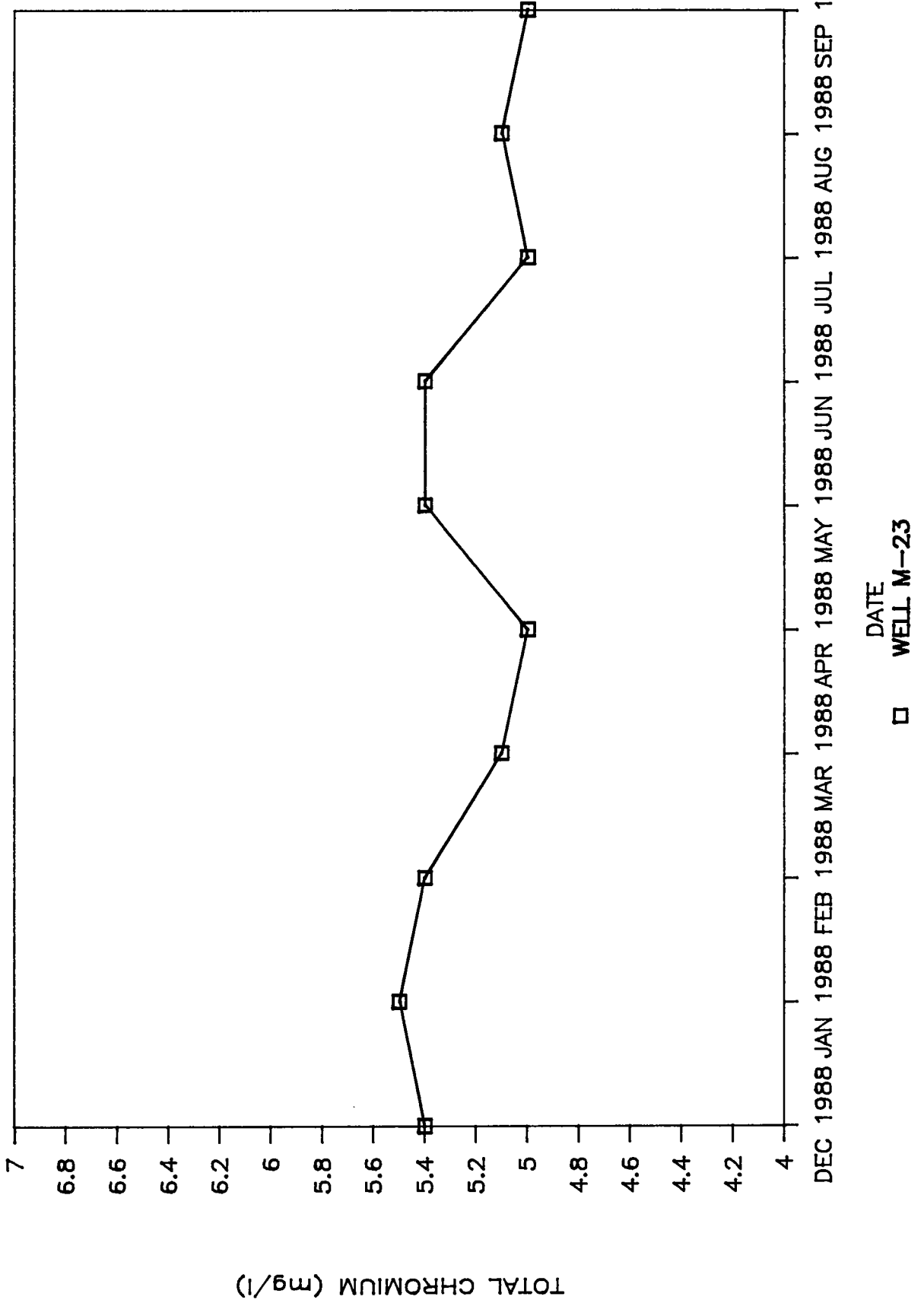
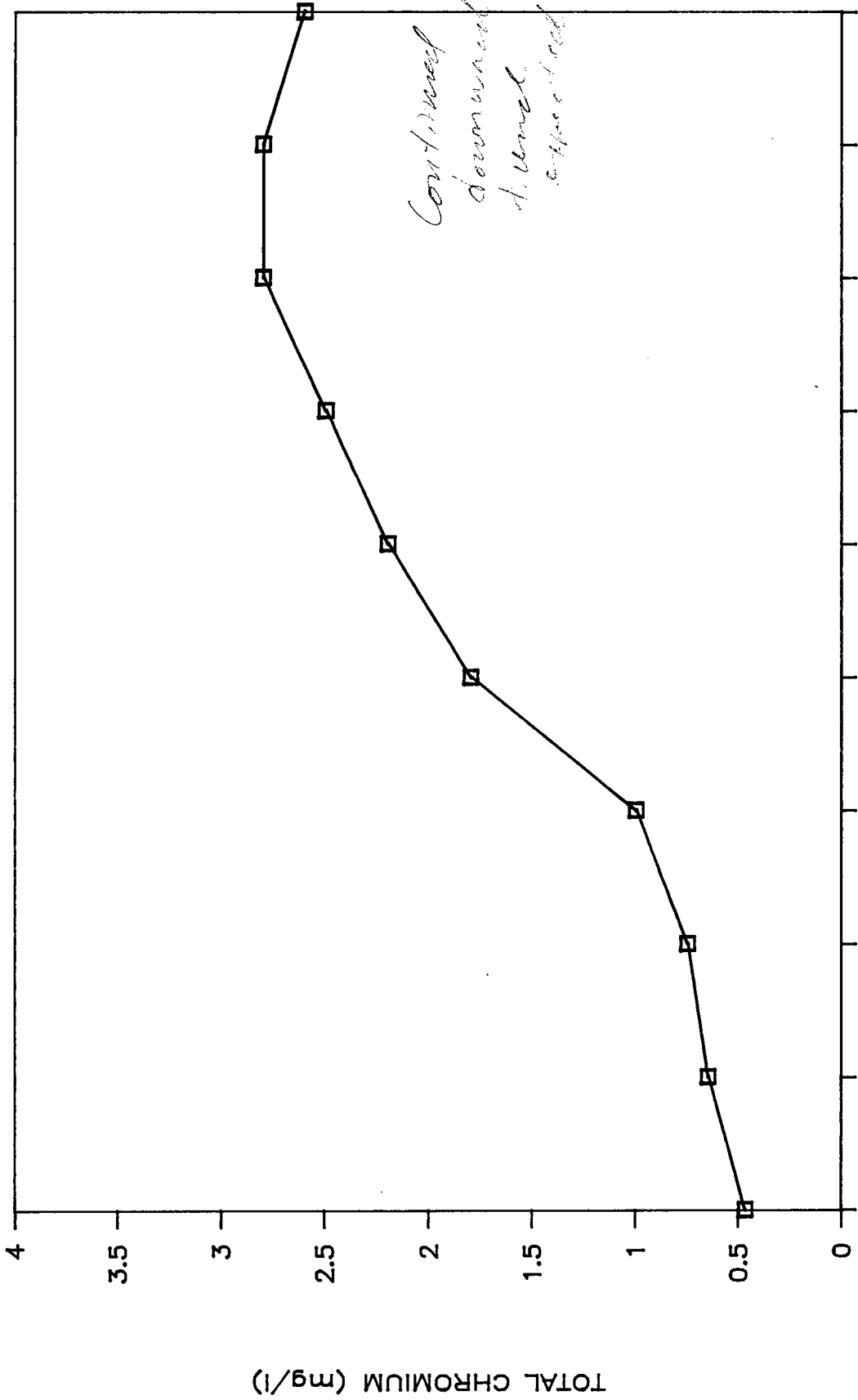


FIGURE 5

APPENDIX J WELL CHROMIUM CONCENTRATION

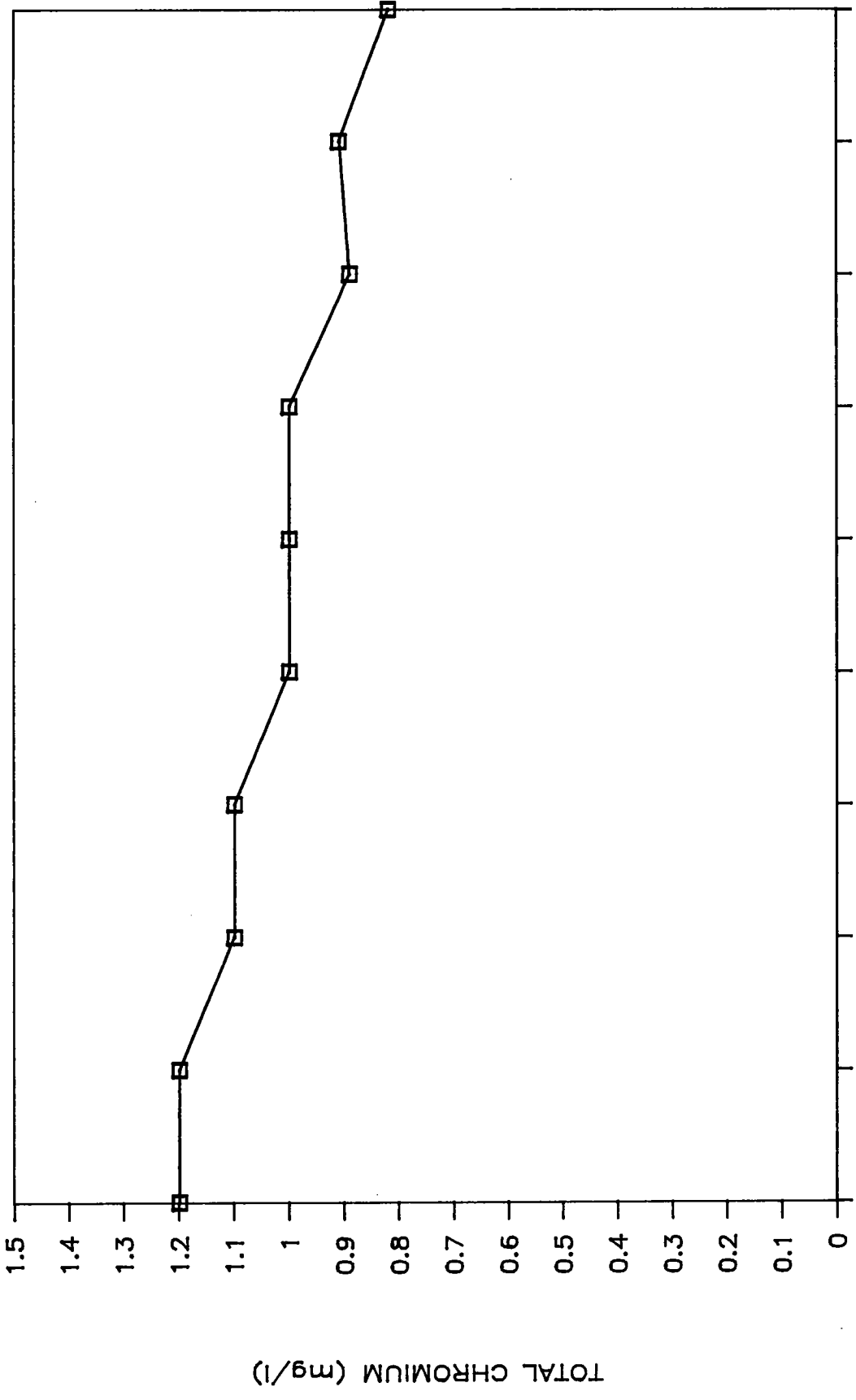


DATE
□ WELL M-36

DEC 1988 JAN 1988 FEB 1988 MAR 1988 APR 1988 MAY 1988 JUN 1988 JUL 1988 AUG 1988 SEP 1988

FIGURE 6

APPENDIX J WELL CHROMIUM CONCENTRATION

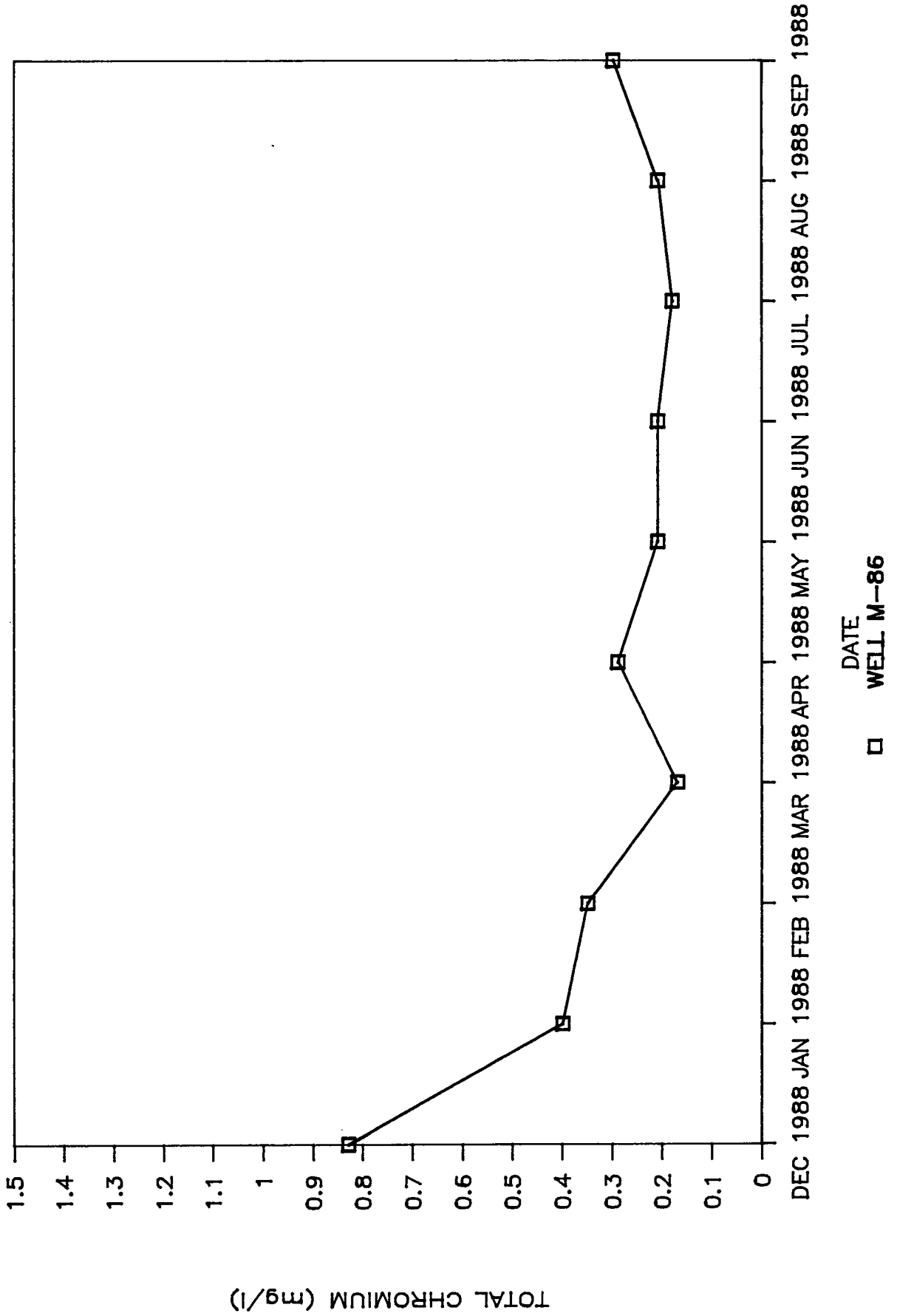


DEC 1988 JAN 1988 FEB 1988 MAR 1988 APR 1988 MAY 1988 JUN 1988 JUL 1988 AUG 1988 SEP 1988

DATE
□ WELL M-72

FIGURE 7

APPENDIX J WELL CHROMIUM CONCENTRATION



noted is believed to indicate that the subsurface is being "flushed", and these concentrations will peak and then decline with time.

Well M-72 (Figure 6) has shown a continual decline in chromium concentration since December, 1987. Well M-86, located just downgradient from the recharge trench, showed a dramatic decrease in chromium concentration (it is believed that the April, 1988 data point is the result of analytical error). Since drawdown was significant in the eastern portion of the interceptor line, and the treatment plant was not capable of continuing to process the full flow due to piping modifications, the discharge of the three easternmost interceptor wells was decreased in late August (see Table 1). Although drawdowns are still significant, some uncontained underflow may be contributing to the chromium concentrations recorded in this well. If so, increased discharge from the three above-mentioned interceptor wells will cause chromium concentrations in Well M-86 to decline.

Well M-23 is the farthest downgradient of the Appendix J wells. The graph that depicts chromium concentration with time for this well (Figure 4) shows a dramatic reduction in chromium concentration. It is not known why the May and June, 1988 data shows a temporary "high" concentration, but subsequent monthly data should stabilize.

ADDITIONAL WORK PERFORMED

During the third quarter of 1988, the construction of additional ammonium perchlorate storage facilities necessitated the replacement of monitor well M-22. This well was replaced with new well M-22R, near the same location, and screened at the same interval as M-22. Installation and location details are included in Appendix A, the monitor well inventory for the facility. The drilling of the new well, M-22R, was duly authorized in response to a KMCC letter to the Nevada Division of Water Resources dated August 4, 1988.

During the fourth quarter of 1988, KMCC will replace the 2" piping added to the treatment plant with 3" pipe. This will reduce the head loss in the system that resulted from the installation of the backup cell, and will enable the feed pump to handle the flow needed to reestablish the discharge of the three easternmost interceptor wells, I-I, I-J, and I-K.

After the modifications to the treatment plant are completed, KMCC plans to increase the discharge of wells I-I, I-J, and I-K by approximately 2.5 gallons per minute each. Well I-C will also be boosted as much as is possible to improve the drawdown in that portion of the interceptor line.

CONCLUSIONS

Kerr-McGee Chemical Corporation continues to see declining regional (facility-wide) water levels in the interceptor system area. Monthly water elevations will be recorded, and groundwater control development will be monitored. KMCC is confident that groundwater interception and control has been attained. The effect of changing the discharge rates of the interceptor wells will continue to be monitored, and measures taken to continue maximizing drawdown and plume interception.

Treatment facility discharge concentrations are consistently below discharge requirements. With the exception of the piping replacement, no other design modifications to the treatment plant facility are contemplated at this time.

No adverse impacts to downgradient groundwater elevations have been observed as a result of returning treated groundwater to the near surface aquifer via the recharge trenches.

APPENDIX A
MONITOR WELL INVENTORY

APPENDIX A
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 WELL INVENTORY

WELL NO.	PURPOSE	DATE INSTALLED	WELL DEPTH FT. FROM TOC	CASING TYPE	SCREEN SIZE/TYPE	SCREENED INTERVAL (TOC)	GRAVEL PACK INTERVAL (TOC)	ELEVATION TOC (MSL)	ELEVATION TOP OF MUDDY CREEK	REMARKS
HR-1	RECOVERY WELL	9-30-86	47.0	6 IN. PVC	.020/SLOT	13.6-43.6	11.6-47.0	1751.07	1720.5	RENAMED I-H
HR-2	RECOVERY WELL	10-1-86	47.0	6 IN. PVC	.020/SLOT	17.8-44.8	14.3-47.0	1750.69	1721.5	RENAMED I-B
HR-3	RECOVERY WELL	10-1-86	47.0	6 IN. PVC	.020/SLOT	15.8-44.8	10.7-47.0	1750.54	1719.0	RENAMED I-D
HR-4	RECOVERY WELL	9-30-86	50.0	6 IN. PVC	.020/SLOT	11.7-43.7	11.0-50.0	1747.58	1714.8	RENAMED I-F
HR-5	RECOVERY WELL	12-11-86	42.5	6 IN. PVC	.020/SLOT	21.2-40.8	6.0-42.5	1751.06	1722.0	RENAMED I-A
HR-6	RECOVERY WELL	12-11-86	44.5	6 IN. PVC	.020/SLOT	13.1-42.5	10.4-44.5	1750.44	1720.8	RENAMED I-C
HR-7	RECOVERY WELL	12-11-86	49.0	6 IN. PVC	.020/SLOT	14.2-43.5	10.2-49.0	1750.22	1718.7	RENAMED I-E
HR-8	RECOVERY WELL	12-12-86	43.5	6 IN. PVC	.020/SLOT	9.5-39.1	7.0-43.5	1750.42	1719.4	RENAMED I-G
HR-9	RECOVERY WELL	12-10-86	45.0	6 IN. PVC	.020/SLOT	11.3-40.6	8.4-45.0	1743.36	1713.7	RENAMED I-I
HR-10	RECOVERY WELL	12-9-86	45.0	6 IN. PVC	.020/SLOT	11.2-40.6	8.7-45.0	1747.95	1716.9	RENAMED I-J
HR-11	RECOVERY WELL	12-12-86	43.0	6 IN. PVC	.020/SLOT	6.7-35.6	6.0-43.0	1743.97	1717.1	RENAMED I-K
I-A	RECOVERY WELL	12-11-86	42.7	6 IN. PVC	.020/SLOT	21.4-41.0	6.2-42.7	1751.06	1722.0	WAS HR-5
I-B	RECOVERY WELL	10-01-86	47.1	6 IN. PVC	.020/SLOT	17.9-44.9	14.4-47.1	1750.69	1721.5	WAS HR-2
I-C	RECOVERY WELL	12-11-86	44.4	6 IN. PVC	.020/SLOT	13.2-42.6	10.5-44.6	1750.44	1720.8	WAS HR-6
I-D	RECOVERY WELL	10-01-86	47.5	6 IN. PVC	.020/SLOT	16.3-45.3	11.2-47.5	1750.54	1719.0	WAS HR-3
I-E	RECOVERY WELL	12-11-86	49.0	6 IN. PVC	.020/SLOT	14.2-43.5	10.2-49.0	1750.22	1718.7	WAS HR-7
I-F	RECOVERY WELL	9-30-86	50.5	6 IN. PVC	.020/SLOT	12.2-44.2	11.5-50.5	1747.58	1714.8	WAS HR-4
I-G	RECOVERY WELL	12-12-86	44.3	6 IN. PVC	.020/SLOT	10.3-39.9	7.8-44.3	1750.42	1719.4	WAS HR-8
I-H	RECOVERY WELL	9-30-86	47.5	6 IN. PVC	.020/SLOT	14.1-44.1	12.1-47.5	1751.07	1720.5	WAS HR-1
I-I	RECOVERY WELL	12-10-86	45.5	6 IN. PVC	.020/SLOT	11.8-41.1	8.9-45.5	1743.36	1713.7	WAS HR-9
I-J	RECOVERY WELL	12-09-86	46.0	6 IN. PVC	.020/SLOT	12.2-41.6	9.7-46.0	1747.95	1716.9	WAS HR-10
I-K	RECOVERY WELL	12-12-86	44.1	6 IN. PVC	.020/SLOT	7.8-36.7	7.1-44.1	1743.97	1717.1	WAS HR-11

NOTE: WHEN PUMPS WERE INSTALLED IN RECOVERY (INTERCEPTOR) WELLS,
 WELLS WERE RENAMED AND SANITARY SEALS WERE INSTALLED.
 TOC ELEVATION CHANGED WHEN SANITARY SEALS WERE INSTALLED.
 TOC-BASED MEASUREMENTS CHANGED CORRESPONDINGLY.

EXPLANATION:
 TOC - TOP OF CASING
 MSL - MEAN SEA LEVEL

APPENDIX A
 KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 WELL INVENTORY

WELL NO.	PURPOSE	DATE INSTALLED	WELL DEPTH FT. FROM TOC	CASING TYPE	SCREEN SIZE/TYPE	SCREENED INTERVAL (TOC)	GRAVEL PACK INTERVAL (TOC)	ELEVATION TOC (MSL)	ELEVATION TOP OF MUDDY CREEK	REMARKS
M-1	UPGDNT TO P&S PONDS	11-81	45.38	5 IN. STEEL	.040/SLOT	34.8-44.8	34.3-51.3	1798.68	1751	YIELD 1/2 GPM
M-2	DWNGDNT TO P&S PONDS	11-81	40.69	5 IN. STEEL	.040/SLOT	31.4-41.4	29.4-45.4	1781.20	1739	YIELD 15 GPM
M-3	DWNGDNT TO P&S PONDS	11-81	40.44	5 IN. STEEL	.040/SLOT	30.7-40.7	28.7-45.7	1780.46	1739	YIELD 15 GPM
M-4	DWNGDNT TO P&S PONDS	11-81	41.34	5 IN. STEEL	.040/SLOT	31.4-41.4	29.4-47.4	1780.41	1744	YIELD 3 GPM
M-5	UPGDNT HAZ WST FILL	6-1-82	40.25	5 IN. STEEL	.040/SLOT	29.8-39.8	28.9-43.9	1747.86	1721	
M-6	DWNGDNT HAZ WST FILL	6-2-82	35.90	5 IN. STEEL	.040/SLOT	26.1-36.1	26.1-44.1	1729.15	1696	
M-7	DWNGDNT HAZ WST FILL	6-3-82	35.23	5 IN. STEEL	.040/SLOT	26.0-36.0	24.0-38.0	1729.81	1699	
M-8	DWNGDNT TO P&S PONDS	6-14-82	40.96	5 IN. STEEL	.040/SLOT	31.2-41.2	29.2-46.2	1782.06	1735	
M-9	DWNGDNT TO P&S PONDS	6-15-82	39.83	5 IN. STEEL	.040/SLOT	30.4-40.4	28.4-45.4	1780.30	1744	
M-10	UPGDNT FROM PLANT	5-83	69.45	5 IN. STEEL	.090/SLOT	45.1-65.1	38.1-77.1	1834.76	1795	
M-11	DWNGDNT FROM UNIT 5	5-83	~58.0	5 IN. STEEL	.090/SLOT	35.2-55.2	27.2-62.2	1813.46	1775	
M-12	DWNGDNT FROM UNIT 4	5-83	49.90	5 IN. STEEL	.090/SLOT	39.5-49.5	34.5-67.5	1816.18	1778	
M-13	DWNGDNT FROM UNIT 3	5-83	54.76	5 IN. STEEL	.090/SLOT	29.9-49.9	26.9-56.9	1815.21	1775	
M-14	DWNGDNT FROM AP POND	5-83	39.24	2 IN. PVC	.020/SLOT	24.4-39.4	20.4-39.4	1758.83	1728	
M-15	DWNGDNT FROM AP POND	5-83	42.55	2 IN. PVC	.020/SLOT	28.4-43.4	22.4-43.4	1749.36	1713	TOC- WELL WIZARD DESTROYED
M-16	DWNGDNT FROM AP POND	5-83	~37.0	2 IN. PVC	.020/SLOT	~22- 37	~16-37		1729	
M-17	UPGDNT FROM AP PONDS	5-83	37.00	2 IN. PVC	.020/SLOT	29.8-44.8	20.8-44.8	1769.54	1712	
M-18		8-10-83	29.80	2 IN. PVC	.020/SLOT	16.1-26.1	10.1-30.1	1738.28	1712	
M-19		8-10-83	41.20	2 IN. PVC	.020/SLOT	17.8-37.8	16.3-45.3	1766.26	1729	
M-20		8-11-83	46.55	2 IN. PVC	.020/SLOT	25.4-45.4	20.0-50.0	1798.21	1756	
M-21		8-11-83	44.74	2 IN. PVC	.020/SLOT	22.2-42.2	20.2-47.2	1790.50	1751	
M-22		8-11-83	36.70	2 IN. PVC	.020/SLOT	13.1-33.1	13.3-39.3	1757.76	1726	
M-22R	REPLACEMENT FOR M-22	9-9-88	36.92	2 IN. PVC	.020/SLOT	16.92-36.92	8.0-36.92	1758.35	1726	
M-23		8-11-83	44.47	2 IN. PVC	.020/SLOT	9.4-37.4	8.6-45.6	1712.78	1672	
M-24		5-14-84	42.69	2 IN. PVC	.020/SLOT	27.2-42.2		1788.54	1750	
M-25	AP-5 MONITOR WELL	5-14-84	41.47	2 IN. PVC	.020/SLOT	28.0-43.0		1757.82	1727	
M-26		5-14-84	37 G.E.	2 IN. PVC	.020/SLOT				1729	

EXPLANATION:
 TOC - TOP OF CASING
 MSL - MEAN SEA LEVEL

APPENDIX A
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 WELL INVENTORY

WELL NO.	PURPOSE	DATE INSTALLED	WELL DEPTH FT. FROM TOC	CASING TYPE	SCREEN SIZE/TYPE	SCREENED INTERVAL (TOC)	GRAVEL PACK INTERVAL (TOC)	ELEVATION TOC (MSL)	ELEVATION TOP OF MUDDY CREEK	REMARKS
M-27	UNIT 6 MONITOR WELL	5-14-84	30.92	2 IN. PVC	.020/SLOT	21.8-36.8		1740.47	<1699	
M-28	UNIT 6 MONITOR WELL	7-23-84	47.61	2 IN. PVC	.010/SLOT	29.8-49.8	30.8-48.8	1810.68	1780	
M-29	UNIT 6 MONITOR WELL	7-13-84	41.74	2 IN. PVC	.010/SLOT	22.4-39.4	15.4-42.8	1806.60	1785	
M-30	UNIT 6 MONITOR WELL	7-17-84	43.32	2 IN. PVC	.010/SLOT	32.0-44.7	31.8-44.8	1811.27	1786	
M-31	CR PLUME MONITOR	6-85	47.60	2 IN. PVC	.010/SLOT	32.4-47.4		1788.06	1748	
M-32	CR PLUME MONITOR	6-85	46.76	2 IN. PVC	.010/SLOT	31.9-46.9		1787.48	1752	
M-33	CR PLUME MONITOR	6-85	46.78	2 IN. PVC	.010/SLOT	32.0-47.0		1786.98	1750	
M-34	CR PLUME MONITOR	6-85	41.83	2 IN. PVC	.010/SLOT	26.9-41.9		1776.10	1739	
M-35	CR PLUME MONITOR	6-85	42.33	2 IN. PVC	.010/SLOT	26.9-41.9		1775.01	1740	
M-36	CR PLUME MONITOR	6-85	37.85	2 IN. PVC	.010/SLOT	22.9-37.9		1757.94	1728	
M-37	CR PLUME MONITOR	6-85	37.18	2 IN. PVC	.010/SLOT	22.2-37.2		1759.28	1730	
M-38	CR PLUME MONITOR	6-85	37.44	2 IN. PVC	.010/SLOT	22.6-37.6		1757.94	1728	
M-39	CR PLUME MONITOR	6-85	42.60	2 IN. PVC	.010/SLOT	22.6-37.6		1759.31	1723	
M-40	CR PLUME MONITOR	6-85	47.40	2 IN. PVC	.010/SLOT	32.4-47.4		1797.89	1764	
M-41	CR PLUME MONITOR	7-85	37.52	2 IN. PVC	.010/SLOT	7.6-37.6		1695.60	1669	
M-42	CR PLUME MONITOR	7-85	37.02	2 IN. PVC	.010/SLOT	4.4-34.4		1696.24	1668	
M-43	CR PLUME MONITOR	7-85	37.56	2 IN. PVC	.010/SLOT	4.9-34.9		1696.16	1669	
M-44	CR PLUME MONITOR	7-85	37.65	2 IN. PVC	.010/SLOT	5.1-35.1		1696.74	1674	
M-45	CR PLUME MONITOR	7-85	36.59	2 IN. PVC	.010/SLOT	4.2-34.2		1697.13	1668	
M-46	CR PLUME MONITOR	7-85	46.89	2 IN. PVC	.010/SLOT	4.2-44.2		1716.08	1672	
M-47	CR PLUME MONITOR	7-85	42.59	2 IN. PVC	.010/SLOT	0.1-40.0		1716.51	1672	
M-48	CR PLUME MONITOR	7-85	38.59	2 IN. PVC	.010/SLOT	6.1-36.1		1719.05	1685	
M-49	CR PLUME MONITOR	7-85	46.50	2 IN. PVC	.010/SLOT	4.0-44.0		1718.78	1680	
M-50	CR PLUME MONITOR	7-85	62.15	2 IN. PVC	.010/SLOT	39.6-59.6		1793.87	1751	
M-51	CR PLUME MONITOR	7-85	36.62	2 IN. PVC	.010/SLOT	3.9-33.9		1695.34	1667	
M-52	CR PLUME MONITOR	7-85	47.38	2 IN. PVC	.010/SLOT	34.5-44.5		1798.70	1764	

EXPLANATION:
 TOC - TOP OF CASING
 MSL - MEAN SEA LEVEL

APPENDIX A
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 WELL INVENTORY

WELL NO.	PURPOSE	DATE INSTALLED	WELL DEPTH FT. FROM TOC	CASING TYPE	SCREEN SIZE/TYPE	SCREENED INTERVAL (TOC)	GRAVEL PACK INTERVAL (TOC)	ELEVATION TOC (MSL)	ELEVATION TOP OF MUDDY CREEK	REMARKS
M-53	INT' CPT MONITOR	9-27-86	41.0	2 IN. PVC	.010/SLOT	20.8-40.7	19.0-41.0	1751.56	1727.6	
M-54	INT' CPT MONITOR	9-29-86	46.0	2 IN. PVC	.010/SLOT	14.8-44.7	13.0-46.0	1748.93	1718.9	
M-55	INT' CPT MONITOR	9-29-86	45.0	2 IN. PVC	.010/SLOT	14.6-44.4	13.0-45.0	1749.35	1718.3	
M-56	INT' CPT MONITOR	9-28-86	40.0	2 IN. PVC	.010/SLOT	15.1-40.0	13.0-40.0	1746.60	1725.1	
M-57	INT' CPT MONITOR	9-30-86	41.0	2 IN. PVC	.010/SLOT	20.8-40.1	18.0-41.0	1752.29	1727.3	
M-58	INT' CPT MONITOR	9-30-86	45.0	2 IN. PVC	.010/SLOT	15.0-44.8	13.0-45.0	1749.25	1719.7	
M-59	INT' CPT MONITOR	9-28-86	40.0	2 IN. PVC	.010/SLOT	5.0-39.8	4.0-40.0	1743.01	1718.5	
M-60	INT' CPT MONITOR	12-10-86	43.0	2 IN. PVC	.010/SLOT	17.8-42.8	16.0-43.0	1750.13	1722.6	
M-61	INT' CPT MONITOR	12-9-86	41.0	2 IN. PVC	.010/SLOT	9.3-39.0	7.5-41.0	1745.55	1719.0	
M-62	INT' CPT MONITOR	12-17-86	33.0	2 IN. PVC	.010/SLOT	18.1-33.0	16.0-33.0	1752.92	1729.8	
M-63	INT' CPT MONITOR	12-18-86	40.0	2 IN. PVC	.010/SLOT	19.6-39.6	18.0-40.0	1750.59	1723.3	
M-64	INT' CPT MONITOR	12-19-86	38.0	2 IN. PVC	.010/SLOT	12.7-37.5	11.0-38.0	1749.76	1727.0	
M-65	INT' CPT MONITOR	12-16-86	40.0	2 IN. PVC	.010/SLOT	14.4-39.2	13.0-40.0	1752.88		
M-66	INT' CPT MONITOR	12-15-86	43.0	2 IN. PVC	.010/SLOT	17.5-42.5	16.0-43.0	1752.33		
M-67	INT' CPT MONITOR	12-12-86	38.0	2 IN. PVC	.010/SLOT	7.8-37.6	6.0-38.0	1744.98		
M-68	INT' CPT MONITOR	12-11-86	41.0	2 IN. PVC	.010/SLOT	11.2-41.0	10.2-41.0	1747.44		
M-69	INT' CPT MONITOR	12-17-86	40.0	2 IN. PVC	.010/SLOT	19.9-39.5	18.0-40.0	1748.77		
M-70	INT' CPT MONITOR	12-16-86	41.0	2 IN. PVC	.010/SLOT	15.3-40.2	14.0-41.0	1746.96		
M-71	INT' CPT MONITOR	12-16-86	43.0	2 IN. PVC	.010/SLOT	17.5-42.2	16.0-43.0	1745.88		
M-72	INT' CPT MONITOR	12-16-86	36.0	2 IN. PVC	.010/SLOT	10.1-35.0	9.0-36.0	1745.49		
M-73	INT' CPT MONITOR	12-15-86	36.0	2 IN. PVC	.010/SLOT	11.0-36.0	9.0-36.0	1740.05		
M-74	INT' CPT MONITOR	12-11-86	39.0	2 IN. PVC	.010/SLOT	9.2-39.0	8.0-39.0	1743.42		
M-75	DWNGDNT TO P&S PONDS	8-20-87	53.9	2 IN. PVC	.010/SLOT	37.0-51.7	33.4-53.9			M-3 REPLACEMENT
M-76	DWNGDNT TO P&S PONDS	8-20-87	54.6	2 IN. PVC	.010/SLOT	37.8-52.5	37.0-54.6			M-4 REPLACEMENT
M-77		8-20-87	47.8	2 IN. PVC	.010/SLOT	30.9-45.6	29.6-47.8			M-20 REPLACEMENT
M-78	WTR LVL RECORDER	8-26-87	43.6	4 IN. PVC	.010/SLOT	21.5-41.5	14.0-43.6	1751.01		TOC- STEEL PLATE
M-79	RECHARGE MONITOR	8-21-87	37.6	2 IN. PVC	.010/SLOT	10.8-35.4	9.0-37.6	1742.93		

EXPLANATION:
 TOC - TOP OF CASING
 MSL - MEAN SEA LEVEL

APPENDIX A
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 WELL INVENTORY

WELL NO.	PURPOSE	DATE INSTALLED	WELL DEPTH FT. FROM TOC	CASING TYPE	SCREEN SIZE/TYPE	SCREENED INTERVAL (TOC)	GRAVEL PACK INTERVAL (TOC)	ELEVATION TOC (MSL)	ELEVATION TOP OF MUDDY CREEK	REMARKS
M-80	WTR LVL RECORDER	8-26-87	43.7	4 IN. PVC	.010/SLOT	11.5-41.5	9.2-43.7	1745.73		TOC- STEEL PLATE
M-81	RECHARGE MONITOR	8-21-87	42.9	2 IN. PVC	.010/SLOT	11.2-40.7	8.6-42.9	1743.73		
M-82	RECHARGE MONITOR	8-24-87	33.3	2 IN. PVC	.010/SLOT	11.1-31.1	10.0-33.3	1739.38		
M-83	RECHARGE MONITOR	8-24-87	42.5	2 IN. PVC	.010/SLOT	10.8-40.3	10.0-42.5	1740.83		
M-84	RECHARGE MONITOR	8-24-87	36.6	2 IN. PVC	.010/SLOT	11.8-34.1	8.5-36.6	1739.63		
M-85	RECHARGE MONITOR	8-25-87	37.1	2 IN. PVC	.010/SLOT	10.4-34.9	9.2-37.1	1741.19		
M-86	RECHARGE MONITOR	8-25-87	43.0	2 IN. PVC	.010/SLOT	11.3-40.8	9.9-43.0	1742.73		
M-87	RECHARGE MONITOR	8-25-87	41.0	2 IN. PVC	.010/SLOT	9.3-38.3	8.6-41.0	1742.27		
M-88	RECHARGE MONITOR	8-26-87	39.0	2 IN. PVC	.010/SLOT	7.3-36.8	6.6-39.0	1737.99		
M-6A	DWINDNT LANDFILL	12-18-86	46.0	2 IN. PVC	.010/SLOT	26.8-41.5	24.0-46.0			
M-7A	DWINDNT LANDFILL	12-18-86	39.0	2 IN. PVC	.010/SLOT	20.1-35.1	18.0-39.0			

EXPLANATION:
 TOC - TOP OF CASING
 MSL - MEAN SEA LEVEL

APPENDIX B
GROUNDWATER ELEVATIONS

APPENDIX B
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA FACILITY
 GROUNDWATER ELEVATIONS

	I-A	I-B	I-C	I-D	I-E	I-F
	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.
TOC--->	1751.06	1750.69	1750.44	1750.54	1750.22	1747.58
14-Sep-87	25.06	24.98	23.86	24.36	23.53	20.73
19-Oct-87	27.18	26.73	24.58	26.48	36.80	22.99
29-Oct-87	27.01	26.45	24.33	26.20	35.80	22.99
09-Nov-87						
16-Dec-87	26.45	26.49	25.55	27.66	45.58	23.17
20-Jan-88	26.63	26.66	26.06	28.29	45.76	23.81
05-Feb-88	25.42	25.40	26.46	28.72	46.20	23.99
01-Mar-88	27.70	27.38	26.99	29.16	45.68	24.55
19-Apr-88	26.42	27.89	27.75	29.79	29.69	25.21
18-May-88	28.83	28.07	26.03	30.06	32.22	25.74
07-Jun-88	29.12	28.30	26.25	30.43	32.76	25.87
14-Jul-88	29.69	27.02	26.37	33.12	34.60	26.50
06-Aug-88	29.80	28.94	26.49	32.06	33.10	26.60
03-Sep-88	31.10	28.90	26.60	35.10	32.70	26.75

	I-G	I-H	I-I	I-J	I-K
	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.
TOC--->	1750.42	1751.07	1743.36	1747.95	1743.97
14-Sep-87	22.13	21.12	12.67	16.08	10.21
19-Oct-87	23.63	24.90	15.35	20.51	17.15
29-Oct-87	24.19	24.96	15.48	20.52	16.89
09-Nov-87					
16-Dec-87	24.59	27.10	17.63	21.75	19.92
20-Jan-88	25.62	30.07	18.65	22.62	21.48
05-Feb-88	26.06	33.08	18.87	22.90	22.75
01-Mar-88	26.59	33.20	19.30	23.39	24.02
19-Apr-88	27.83	28.54	20.02	23.50	22.17
18-May-88	29.13	30.12	20.30	23.62	22.79
07-Jun-88	37.40	30.85	19.80	23.87	25.20
14-Jul-88	37.50	32.97	21.40	24.65	25.00
06-Aug-88	38.01	31.45	21.48	27.40	27.40
03-Sep-88	40.50	38.80	21.12	23.54	23.75

APPENDIX B
 KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA FACILITY
 GROUNDWATER ELEVATIONS

	M-11	M-14	M-15	M-17	M-18	M-19	M-22	M-23	M-25	M-27
	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.
TOC-->	1813.46	1758.83	1749.69	1769.54	1738.28	1766.55	1758.13	1712.78	1758.15	1740.47
14-Sep-87		29.42	23.23	28.56	10.65	25.18	20.50		25.69	18.28
19-Oct-87		26.89	22.36	27.89	11.00	24.94	20.37		24.66	14.80
29-Oct-87		28.77	22.15	27.43	10.93	24.94	20.66		24.72	14.74
09-Nov-87		28.58	21.84	27.43	10.17	24.41	20.10		24.50	14.39
16-Dec-87	44.84	28.26	22.35	30.58	11.24	26.61	22.68		25.73	14.30
20-Jan-88	44.78	28.56	23.29	30.64	11.73	27.60	23.78		26.63	15.36
05-Feb-88	44.78	28.70	23.59	31.12	11.87	27.88	24.20	14.58	27.07	15.70
01-Mar-88	44.76	29.36	24.03	31.72	12.13	28.36	24.65	14.52	27.66	15.88
19-Apr-88	45.17	30.14	24.62	32.42	12.73	28.92	25.25	14.67	28.33	16.45
18-May-88	45.13	30.48	25.05	32.90	13.08	29.34	25.61	14.94	28.75	16.95
07-Jun-88	45.39	30.67	25.24	33.03	13.30	29.64	26.19	15.05	29.00	17.21
14-Jul-88	46.16	31.06	25.83	33.96	13.73	29.98		15.29	29.60	17.52
06-Aug-88	46.20	31.36	25.94	34.18	13.91	29.24		15.73	29.65	17.67
03-Sep-88	46.12	31.32	25.95	34.30	13.40	29.75		15.45	30.10	16.66

	M-31	M-36	M-37	M-38	M-39	M-46	M-47	M-49	M-53	M-54
	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.	DTW	ELEV.
TOC-->	1788.39	1757.94	1759.28	1757.88	1759.31	1716.08	1716.51	1718.78	1751.56	1748.93
14-Sep-87		23.67	26.39	24.35	20.00	12.34	13.20		25.79	22.15
19-Oct-87		22.93	25.57	23.36	20.17	12.61	13.08		25.69	21.88
29-Oct-87		23.15	25.50	23.66	20.42	12.61	13.04		25.53	21.70
09-Nov-87		22.81	25.27	23.38	19.77	12.55	13.00	12.56	25.25	21.38
16-Dec-87		24.52	26.17	24.94	22.92	12.34	13.20	12.56	25.25	21.63
20-Jan-88	39.34	25.62	26.98	26.04	23.80	12.61	13.08	12.53	25.60	22.14
05-Feb-88	39.53	25.95	27.28	26.37	24.32	12.55	13.04	12.49	25.73	22.31
01-Mar-88	39.68	26.50	27.87	26.99	24.81	12.55	13.00	12.47	26.21	22.88
19-Apr-88	40.08	27.14	28.62	27.60	25.42	12.60	13.10	12.60	26.75	23.50
18-May-88	40.36	27.50	28.90	28.00	25.83	12.94	13.29	12.94	27.09	23.60
07-Jun-88	40.50	27.73	29.16	28.27	26.07	13.09	13.47	13.09	27.25	23.83
14-Jul-88	40.70	28.60	29.60	28.75	26.50	13.35	13.72	13.35	27.60	24.50
06-Aug-88	40.53	28.45	29.86	28.94	26.77	13.81	14.07	13.81	27.94	24.52
03-Sep-88	40.52	29.50	29.80	29.20	26.71	13.35	13.72	13.35	28.12	24.48

APPENDIX B
 KERR-McGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA FACILITY
 GROUNDWATER ELEVATIONS

TOC----	M-55 1749.35 DTW	M-56 1749.60 ELEV.	M-57 1752.29 DTW	M-58 1749.25 ELEV.	M-59 1743.01 DTW	M-60 1750.13 ELEV.	M-61 1745.55 DTW	M-62 1752.92 ELEV.	M-63 1750.59 DTW	M-64 1749.76 ELEV.
14-Sep-87	22.72	1726.63	26.91	1730.38	11.60	1729.05	12.53	1727.25	22.52	1727.55
19-Oct-87	22.27	1727.08	26.61	1730.33	12.49	1729.47	14.34	1727.53	22.32	1727.92
29-Oct-87	22.05	1727.30	26.49	1730.30	12.52	1729.50	14.25	1727.54	22.17	1728.42
09-Nov-87	21.83	1727.52	26.28	1730.62	12.01	1729.75	13.38	1727.91	21.85	1728.25
16-Dec-87	22.51	1726.84	26.22	1729.44	13.54	1728.97	15.82	1727.92	22.13	1727.59
20-Jan-88	23.27	1726.08	26.44	1728.67	14.22	1728.07	16.60	1727.41	22.54	1726.85
05-Feb-88	23.74	1725.61	26.67	1728.45	14.48	1727.75	17.12	1727.16	22.78	1726.61
01-Mar-88	24.15	1725.20	27.10	1728.16	14.86	1727.33	17.34	1726.74	23.43	1725.89
19-Apr-88	24.75	1724.60	27.58	1727.58	15.54	1726.59	17.81	1726.15	24.08	1725.24
18-May-88	25.05	1724.30	27.88	1727.13	15.83	1726.31	18.16	1725.87	24.55	1725.02
07-Jun-88	25.27	1724.08	27.97	1726.90	16.08	1726.12	18.35	1725.67	24.88	1724.76
14-Jul-88	25.78	1723.57	28.32	1726.35	16.57	1725.65	18.78	1725.29	25.20	1724.26
06-Aug-88	25.91	1723.44	28.61	1726.01	16.78	1725.44	19.05	1724.93	25.30	1724.10
03-Sep-88	26.20	1723.15	28.62	1726.10	16.57	1725.33	16.50	1724.82	25.30	1723.96

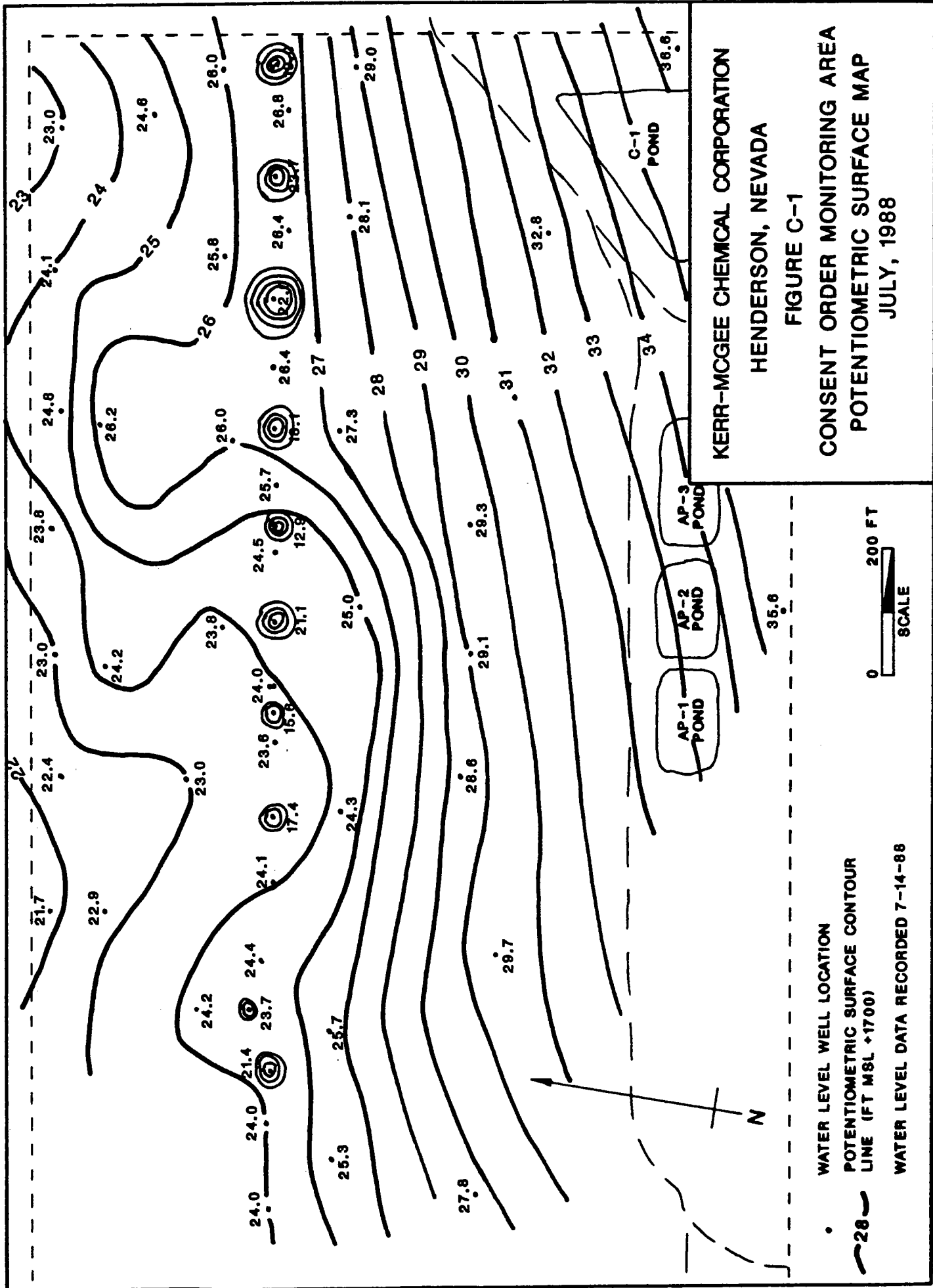
TOC----	M-65 1732.88 DTW	M-66 1752.33 ELEV.	M-67 1744.98 DTW	M-68 1747.44 ELEV.	M-69 1748.77 DTW	M-70 1746.96 ELEV.	M-71 1745.88 DTW	M-72 1745.49 ELEV.	M-73 1740.05 DTW	M-74 1743.42 ELEV.
14-Sep-87	24.03	1728.85	11.45	1736.48	24.04	1725.49	20.42	1728.37	10.71	1729.34
19-Oct-87	23.63	1729.25	12.17	1734.84	23.98	1725.93	18.50	1729.43	10.85	1729.20
29-Oct-87	23.56	1729.32	12.26	1735.05	23.85	1726.19	18.48	1729.45	10.84	1729.21
09-Nov-87	23.26	1729.62	11.66	1736.06	23.44	1726.51	18.15	1729.83	10.30	1729.75
16-Dec-87	24.09	1728.79	13.72	1732.17	23.39	1725.96	16.20	1729.06	11.41	1728.64
20-Jan-88	24.97	1727.91	14.59	1731.32	23.61	1725.35	19.37	1728.27	12.02	1728.02
05-Feb-88	25.24	1727.64	14.90	1730.91	23.84	1724.99	19.77	1728.03	12.27	1727.79
01-Mar-88	25.69	1726.99	15.33	1730.48	24.31	1724.43	20.11	1727.72	12.50	1727.42
19-Apr-88	26.56	1726.30	15.81	1729.94	24.82	1723.86	20.75	1727.18	13.12	1726.93
18-May-88	27.00	1725.88	16.18	1729.60	24.82	1723.62	21.30	1726.76	13.55	1726.50
07-Jun-88	27.24	1725.64	16.44	1729.36	25.07	1723.43	21.55	1726.52	13.82	1726.23
14-Jul-88	27.85	1725.03	16.93	1728.98	24.54	1723.01	22.04	1726.00	14.30	1725.75
06-Aug-88	27.97	1724.91	17.20	1728.68	26.02	1722.70	22.25	1726.09	14.51	1725.54
03-Sep-88	28.25	1724.63	17.00	1729.49	25.90	1722.87	22.15	1725.79	14.30	1725.75

APPENDIX B
 KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA FACILITY
 GROUNDWATER ELEVATIONS

	M-78	M-79	M-80	M-81	M-82	M-83	M-84	M-85	M-86	M-87
TOC-->	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.	DTW ELEV.
14-Sep-87	24.88 1726.13	20.02 1722.91	22.67 1723.06	18.70 1725.03	17.64 1721.74	18.86 1721.97	17.24 1722.39	16.44 1722.75	18.37 1724.36	17.12 1725.15
19-Oct-87	24.01 1727.00	19.22 1723.71	18.44 1727.29	14.64 1729.09	16.76 1722.62	16.47 1724.36	13.85 1725.78	14.63 1726.56	15.33 1727.40	16.06 1726.21
29-Oct-87	23.80 1727.21	19.02 1723.91	18.53 1727.20	14.37 1729.36	16.59 1722.79	16.03 1724.80	13.80 1725.83	14.49 1726.70	16.18 1726.55	15.92 1726.35
09-Nov-87		18.25 1724.68	18.21 1727.52	13.94 1729.79	15.98 1723.40	13.85 1724.98	14.46 1725.17	14.11 1727.08	14.65 1728.08	15.13 1727.14
16-Dec-87	24.00 1727.01	17.66 1725.27	18.05 1727.68	14.00 1729.73	15.88 1723.80	15.73 1725.10	14.37 1725.26	14.04 1727.15	14.83 1727.90	15.62 1726.65
20-Jan-88	24.94 1726.07	17.54 1725.39	20.80 1724.93	15.13 1728.60	15.74 1723.64	16.52 1724.31	14.42 1725.21	15.14 1726.05	15.71 1727.02	16.10 1726.17
05-Feb-88	25.24 1725.77	17.88 1725.05	21.23 1724.50	15.18 1728.55	15.98 1723.40	16.64 1724.19	14.82 1724.81	15.36 1725.83	15.96 1726.77	16.15 1725.12
01-Mar-88	25.68 1725.33	18.37 1724.56	19.72 1726.01	15.46 1728.27	16.37 1723.01	17.05 1723.78	15.00 1724.63	15.63 1725.56	16.00 1726.73	16.32 1725.95
19-Apr-88	24.75 1726.26	18.87 1724.06	20.41 1725.32	16.08 1727.65	16.85 1722.53	17.54 1723.29	15.56 1724.07	16.23 1724.96	16.62 1726.11	16.87 1725.40
18-May-88	26.23 1724.78	19.47 1723.46	21.05 1724.68	16.80 1726.93	17.28 1722.10	18.00 1722.83	16.00 1723.63	16.80 1724.39	16.23 1726.50	17.31 1724.96
07-Jun-88	26.23 1724.78	19.70 1723.23	21.20 1724.53	17.11 1726.62	17.47 1721.91	18.24 1722.59	16.32 1723.31	17.11 1724.08	17.50 1725.23	17.63 1724.64
14-Jul-88	26.80 1724.21	20.00 1722.93	21.50 1724.23	17.55 1726.18	17.67 1721.71	18.45 1722.38	16.62 1723.01	17.42 1723.77	17.93 1724.80	18.15 1724.12
06-Aug-88	26.97 1724.04	20.42 1722.51	21.53 1724.20	17.79 1725.94	18.07 1721.31	19.00 1721.63	17.03 1722.60	17.80 1723.39	18.21 1724.52	18.20 1724.07
03-Sep-88	27.10 1723.91	20.10 1722.83	21.02 1724.71	17.40 1726.33	17.50 1721.88	17.87 1722.96	15.80 1723.83	16.90 1724.29	17.74 1724.99	17.80 1724.47

	M-88
TOC-->	DTW ELEV.
14-Sep-87	13.05 1724.94
19-Oct-87	13.87 1724.12
29-Oct-87	13.79 1724.20
09-Nov-87	12.15 1725.84
16-Dec-87	12.59 1725.40
20-Jan-88	13.02 1724.97
05-Feb-88	13.19 1724.60
01-Mar-88	13.41 1724.58
19-Apr-88	13.93 1724.06
18-May-88	14.41 1723.58
07-Jun-88	14.57 1723.42
14-Jul-88	14.97 1723.02
06-Aug-88	15.08 1722.91
03-Sep-88	14.56 1723.43

APPENDIX C
POTENTIOMETRIC SURFACE MAPS
INTERCEPTOR AREA CROSS-SECTIONS



KERR-MCGEE CHEMICAL CORPORATION

HENDERSON, NEVADA

FIGURE C-1

CONSENT ORDER MONITORING AREA
 POTENTIOMETRIC SURFACE MAP

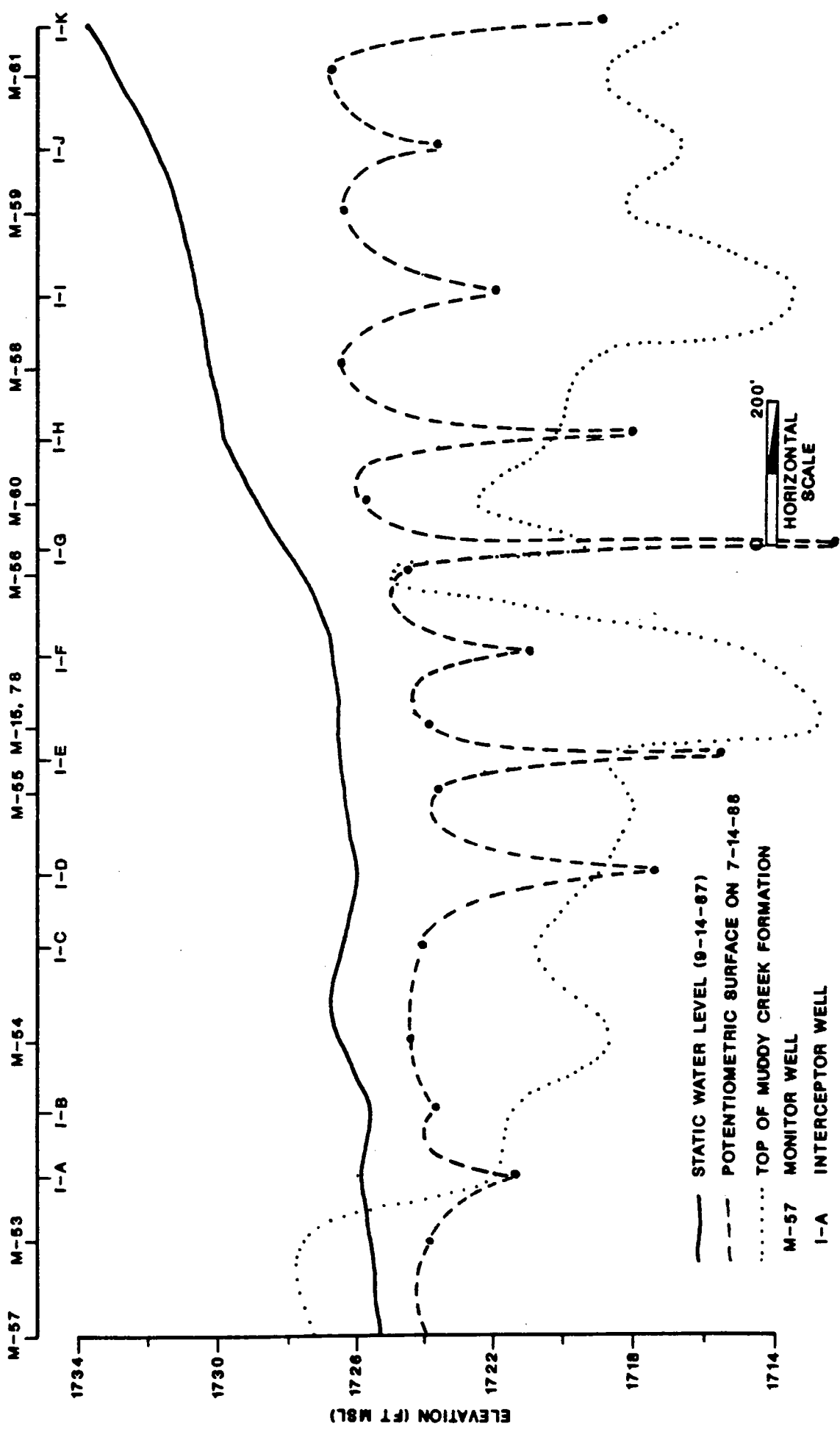
JULY, 1988

• WATER LEVEL WELL LOCATION

— POTENTIOMETRIC SURFACE CONTOUR
 LINE (FT MSL +1700)

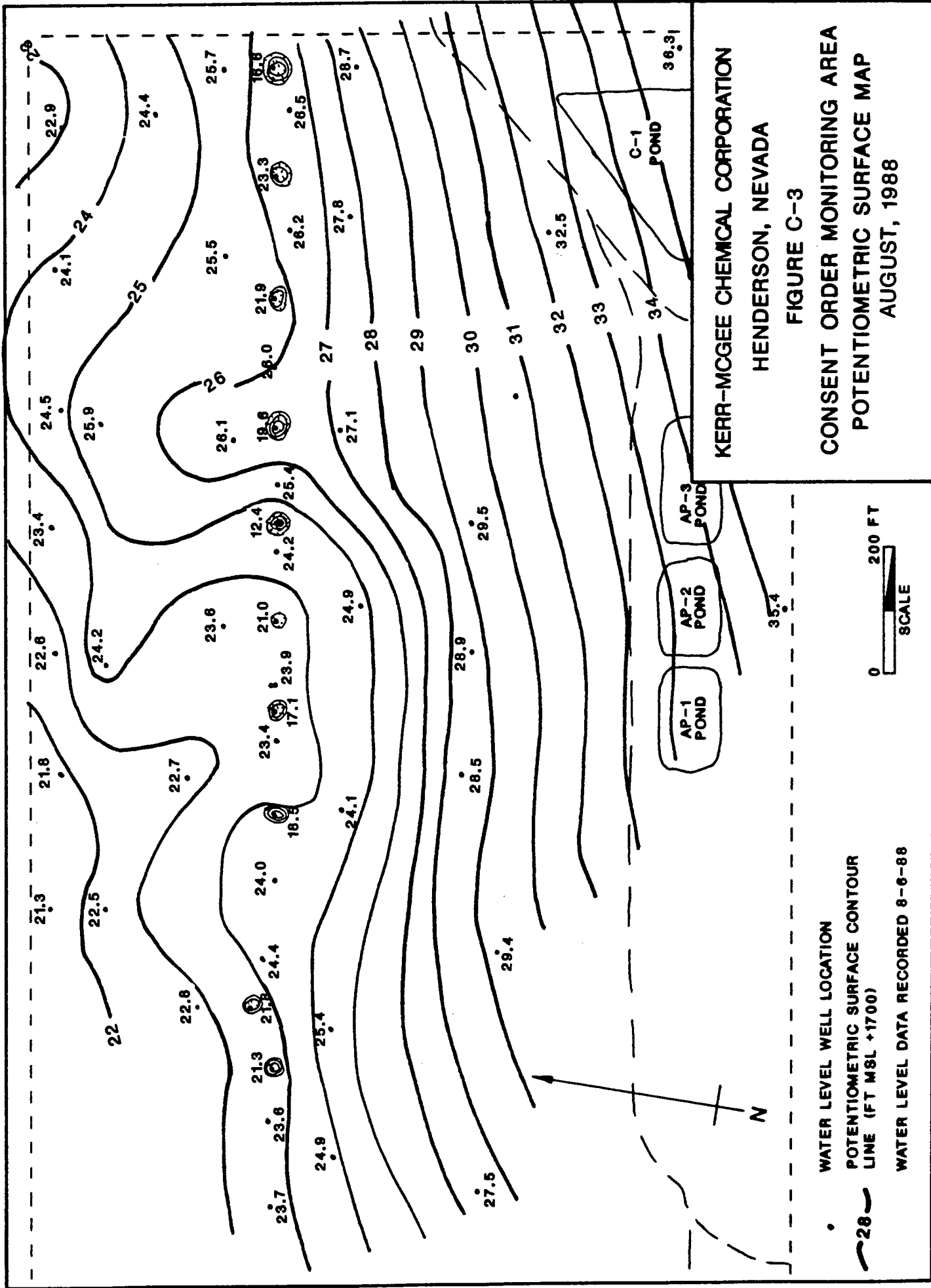
WATER LEVEL DATA RECORDED 7-14-88

KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 GROUNDWATER INTERCEPTOR LINE CROSS-SECTION
 FIGURE C-2



- STATIC WATER LEVEL (9-14-87)
- - - POTENTIOMETRIC SURFACE ON 7-14-88
- TOP OF MUDDY CREEK FORMATION
- M-57 MONITOR WELL
- I-A INTERCEPTOR WELL





KERR-MCGEE CHEMICAL CORPORATION

HENDERSON, NEVADA

FIGURE C-3

CONSENT ORDER MONITORING AREA

POTENTIOMETRIC SURFACE MAP

AUGUST, 1988

• WATER LEVEL WELL LOCATION

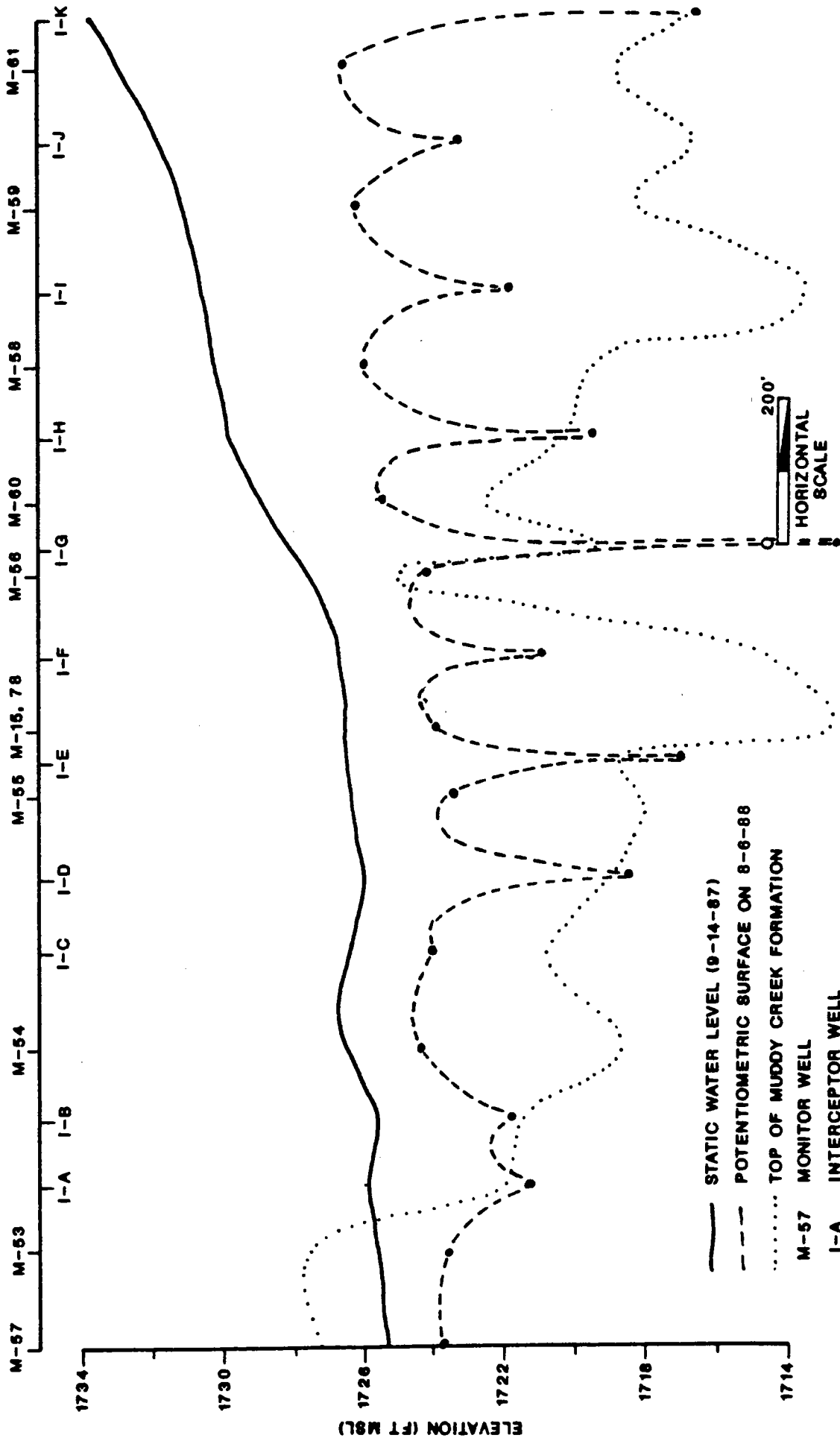
— POTENTIOMETRIC SURFACE CONTOUR LINE (FT MSL +1700)

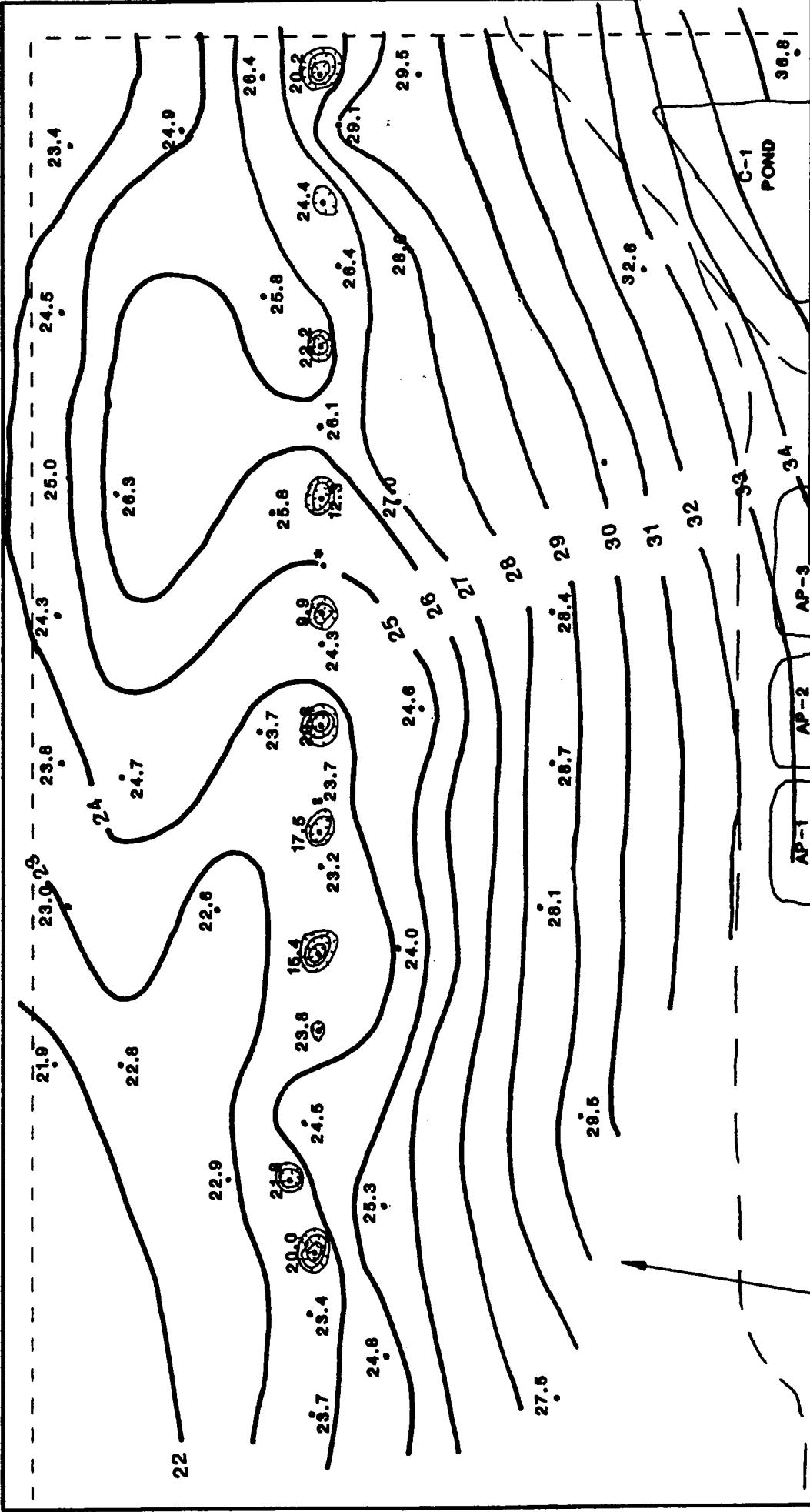
WATER LEVEL DATA RECORDED 8-6-88



N

KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 GROUNDWATER INTERCEPTOR LINE CROSS-SECTION
 FIGURE C-4





KERR-MCGEE CHEMICAL CORPORATION

HENDERSON, NEVADA

FIGURE C-5

CONSENT ORDER MONITORING AREA

POTENTIOMETRIC SURFACE MAP

SEPTEMBER, 1988

*DATA POINT NOT INCLUDED-SEE TEXT

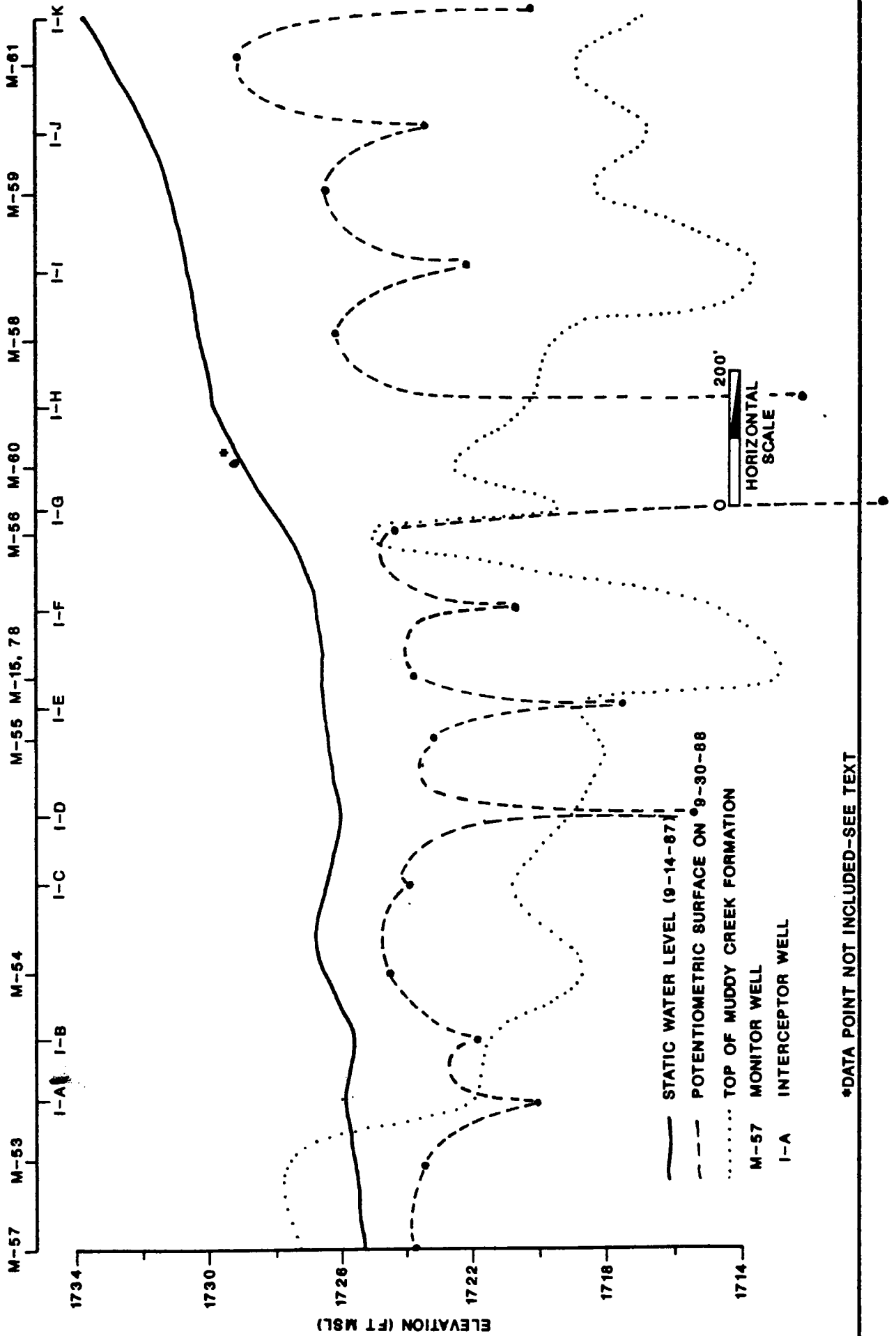
• WATER LEVEL WELL LOCATION
 POTENTIOMETRIC SURFACE CONTOUR
 LINE (FT MSL +1700)

WATER LEVEL DATA RECORDED 9-3-88



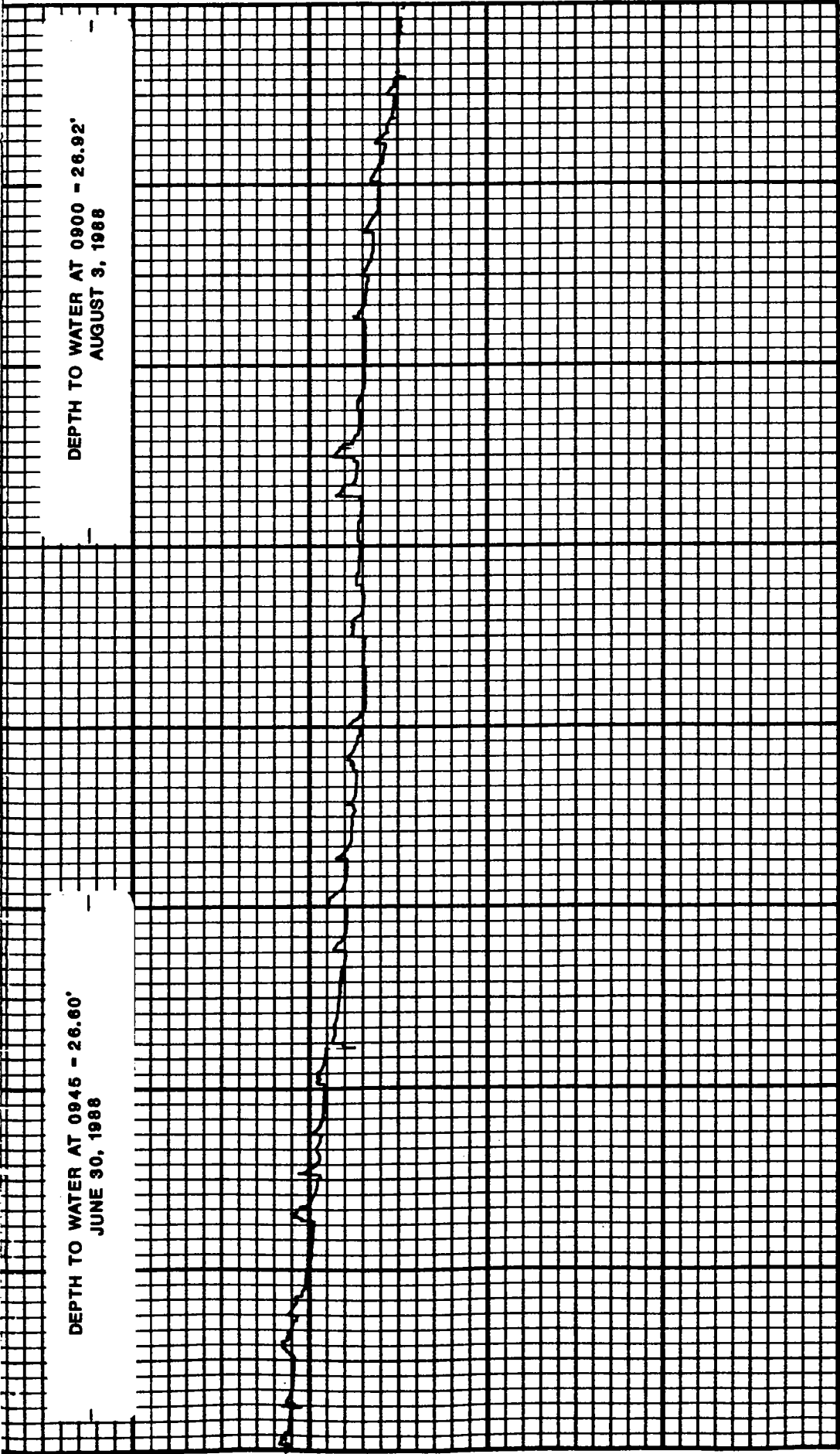
28

KERR-MCGEE CHEMICAL CORPORATION
 HENDERSON, NEVADA
 GROUNDWATER INTERCEPTOR LINE CROSS-SECTION
 FIGURE C-6

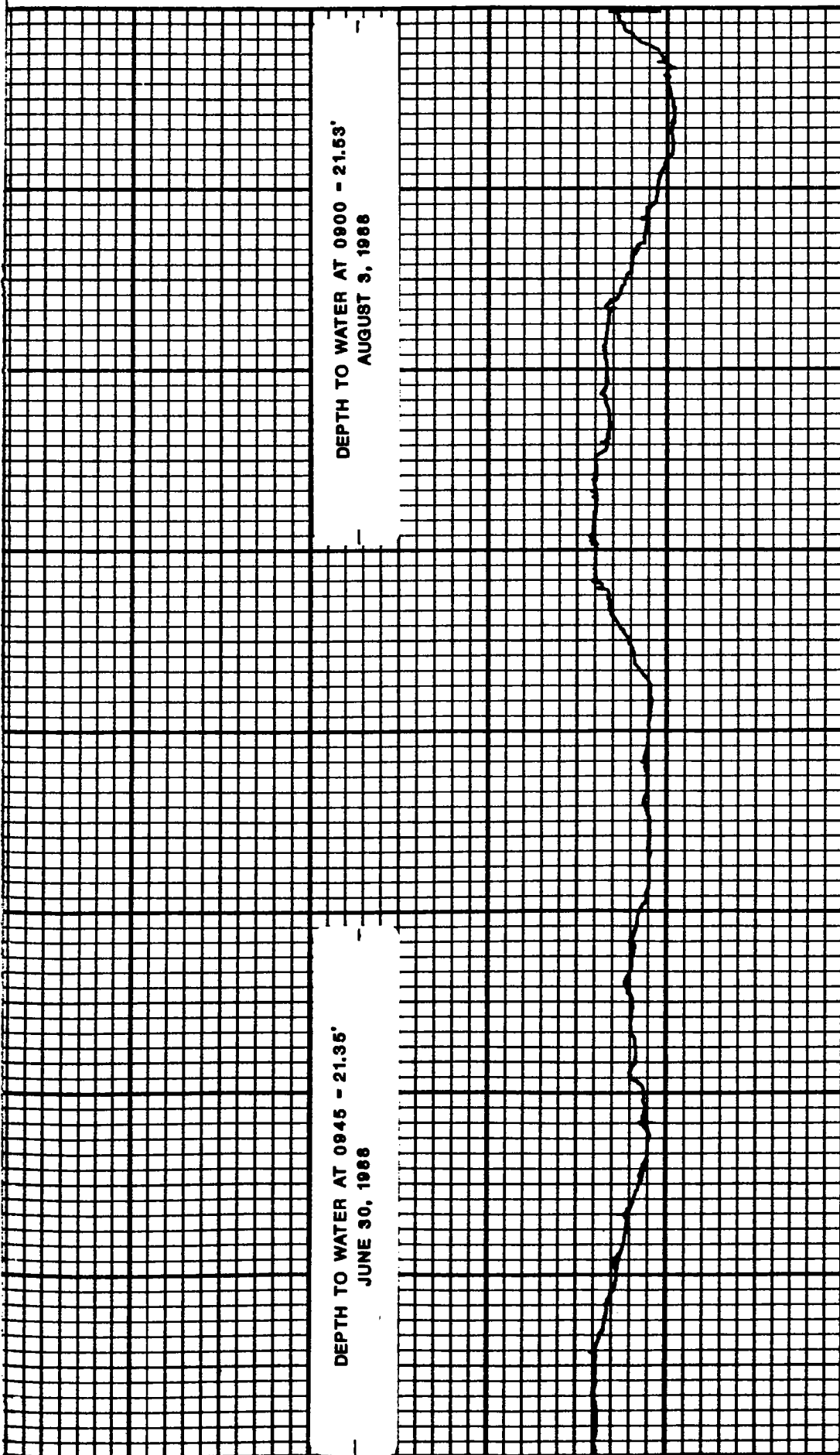


*DATA POINT NOT INCLUDED-SEE TEXT

APPENDIX D
CONTINUOUS WATER LEVEL RECORDER CHARTS



CONTINUOUS WATER LEVEL RECORDER CHART
WELL M-78
6-30-88 TO 8-3-88



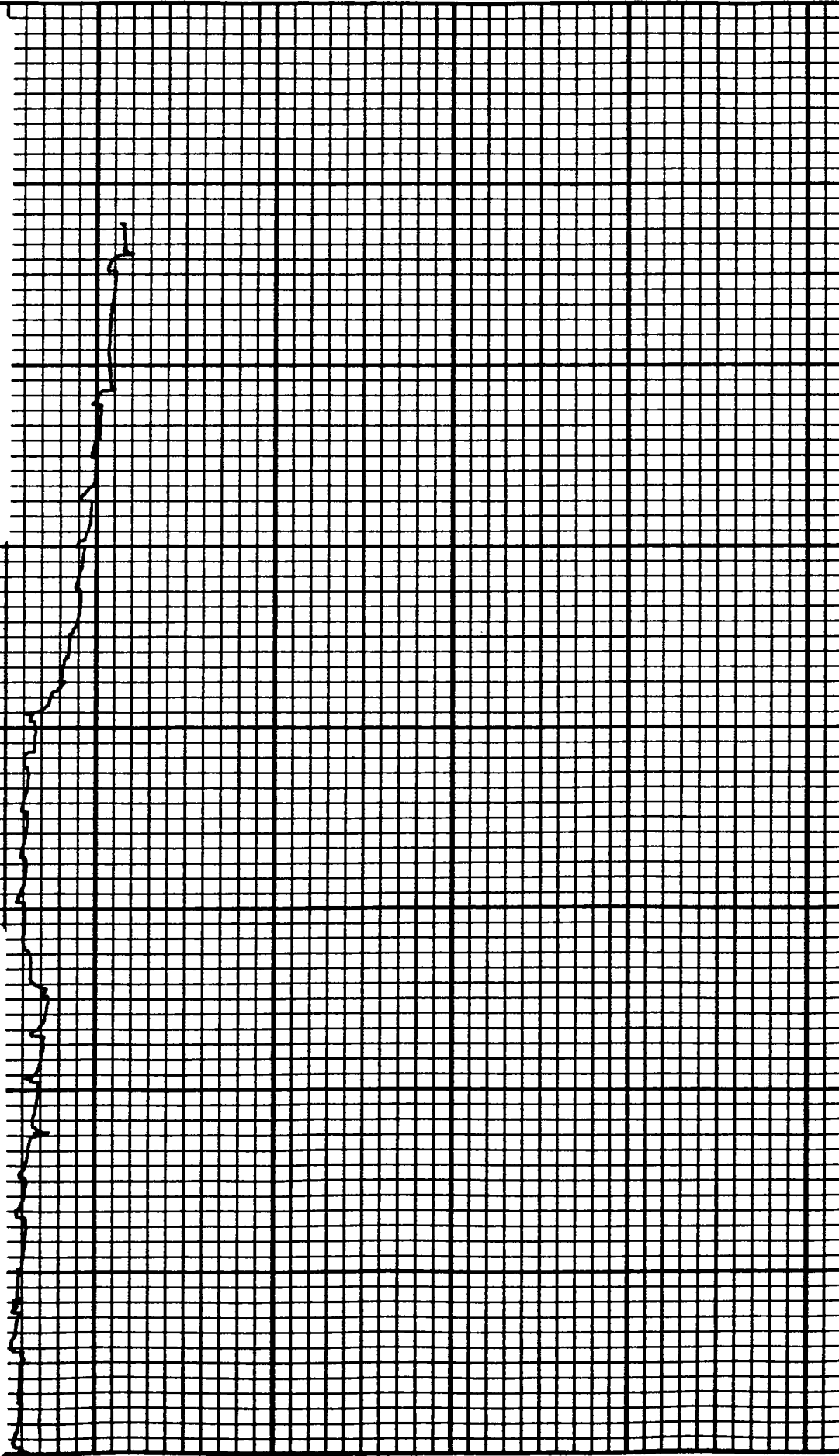
CONTINUOUS WATER LEVEL RECORDER CHART

WELL M-80

6-30-88 TO 8-3-88

DEPTH TO WATER AT 0900 - 26.92'
AUGUST 3, 1988

DEPTH TO WATER AT 1130 - 27.20'
AUGUST 30, 1988



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CONTINUOUS WATER LEVEL RECORDER CHART

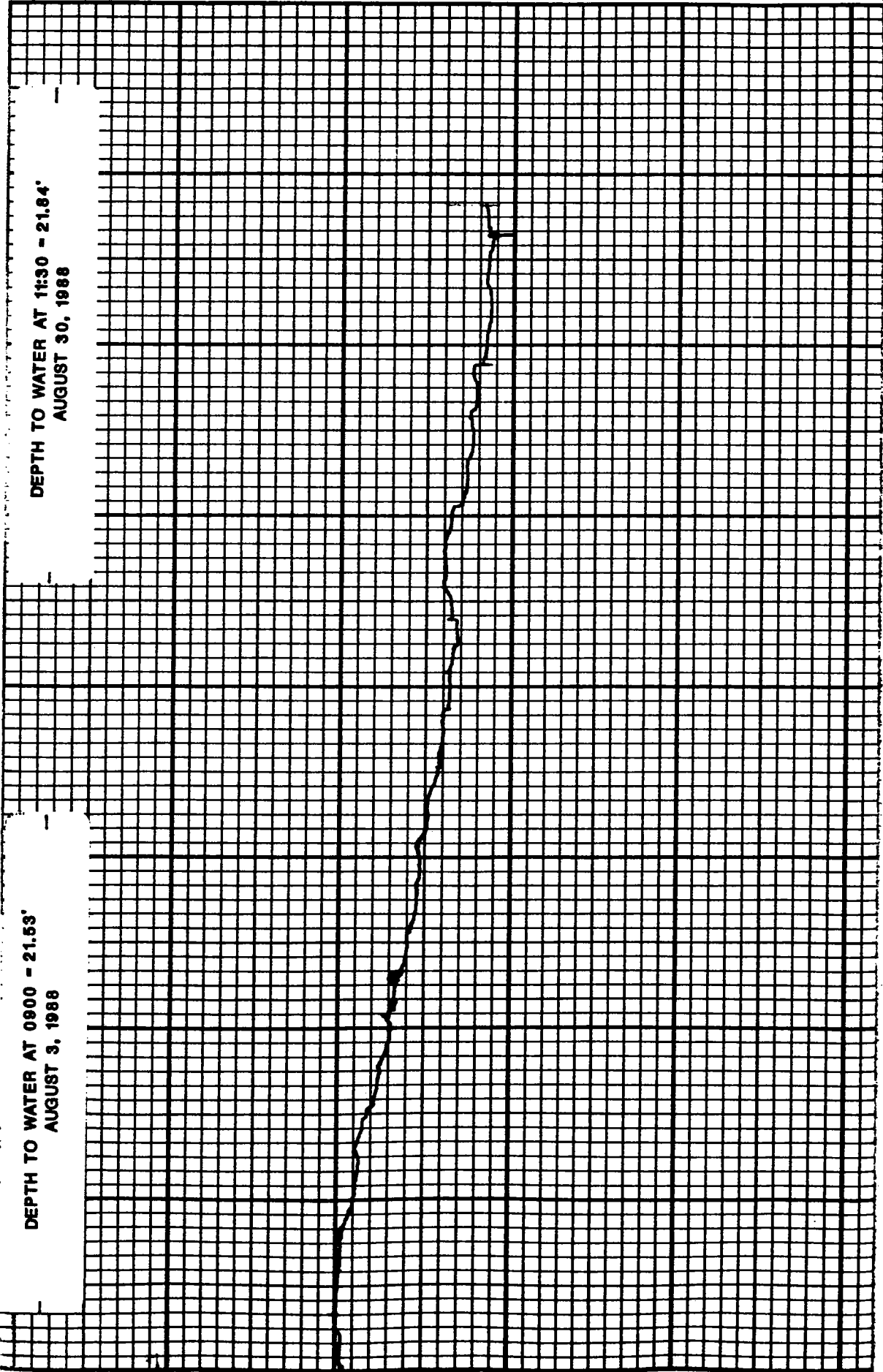
WELL M-78

8-3-88 TO 8-30-88

Chart F-1



Type F



DEPTH TO WATER AT 0900 - 21.53'
AUGUST 3, 1988

DEPTH TO WATER AT 11:30 - 21.84'
AUGUST 30, 1988

CONTINUOUS WATER LEVEL RECORDER CHART

WELL M-80

8-3-88 TO 8-30-88

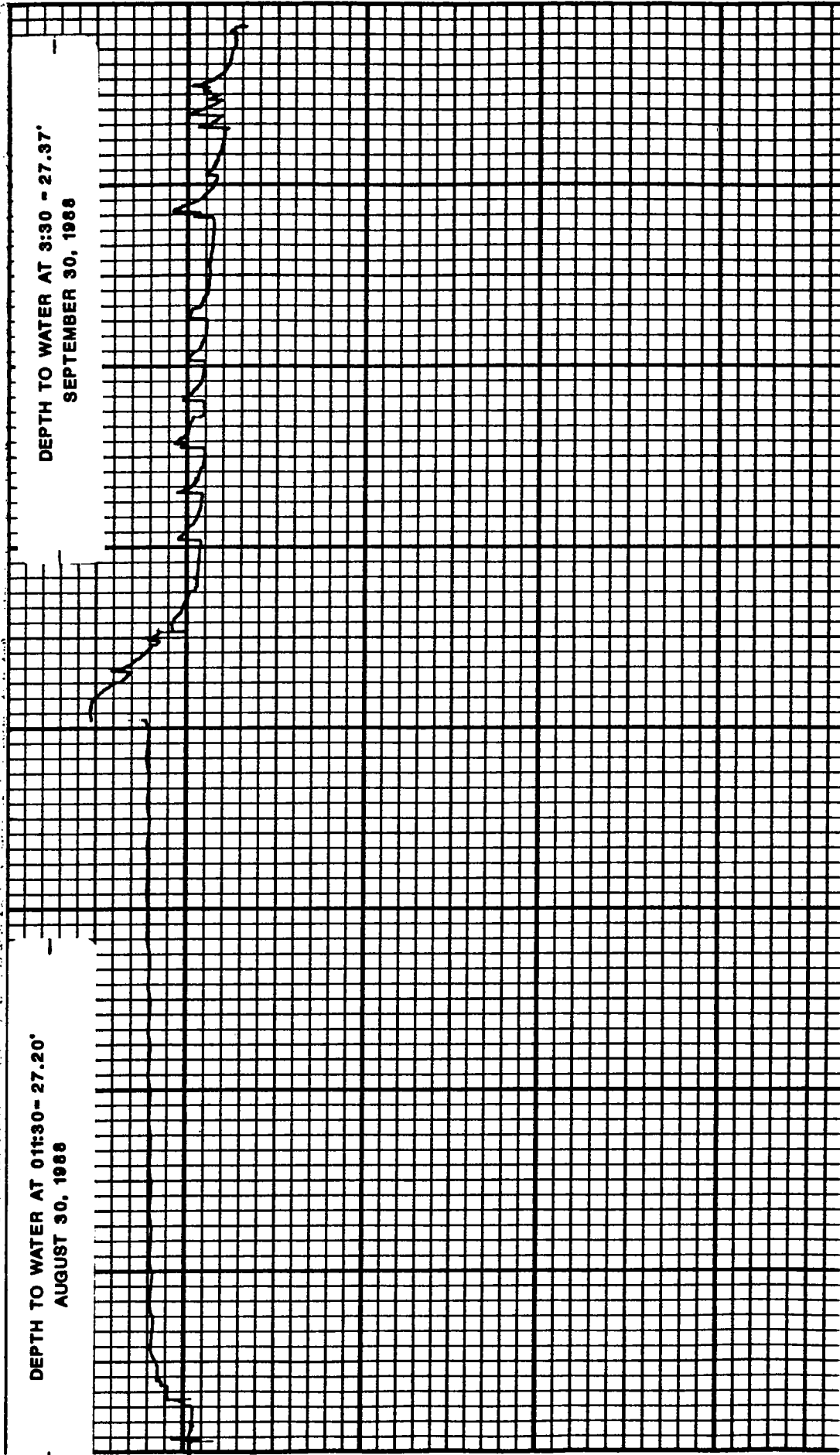
CONTINUOUS WATER LEVEL RECORDER CHART

WELL M-78

8-30-88 TO 9-30-88

DEPTH TO WATER AT 01:30 - 27.20'
AUGUST 30, 1988

DEPTH TO WATER AT 3:30 - 27.37'
SEPTEMBER 30, 1988



CONTINUOUS WATER LEVEL RECORDER CHART
WELL M-80
8-30-88 TO 9-30-88

