

5. 地下水モニタリング

掘削工事による汚染の拡大のないことを確認するため、掘削エリアの北側約 2m のところに設置した 3 本の観測井にて定期的に地下水中の総ヒ素濃度のモニタリングを実施している。また、コンクリート様の塊の除去の後に、掘削エリア内に湧き出た地下水の抜き取りにより、総ヒ素濃度がどのような変化するかを調査した。

土留め矢板打設の実施時、掘削作業時、観測井洗浄時等において観測井 K - 1 のヒ素濃度が一時的に上昇する傾向が認められたが、これらの作業の実施後に徐々に低下しており、掘削調査による周辺環境への影響は一時的かつ限定的であったと考えられる。

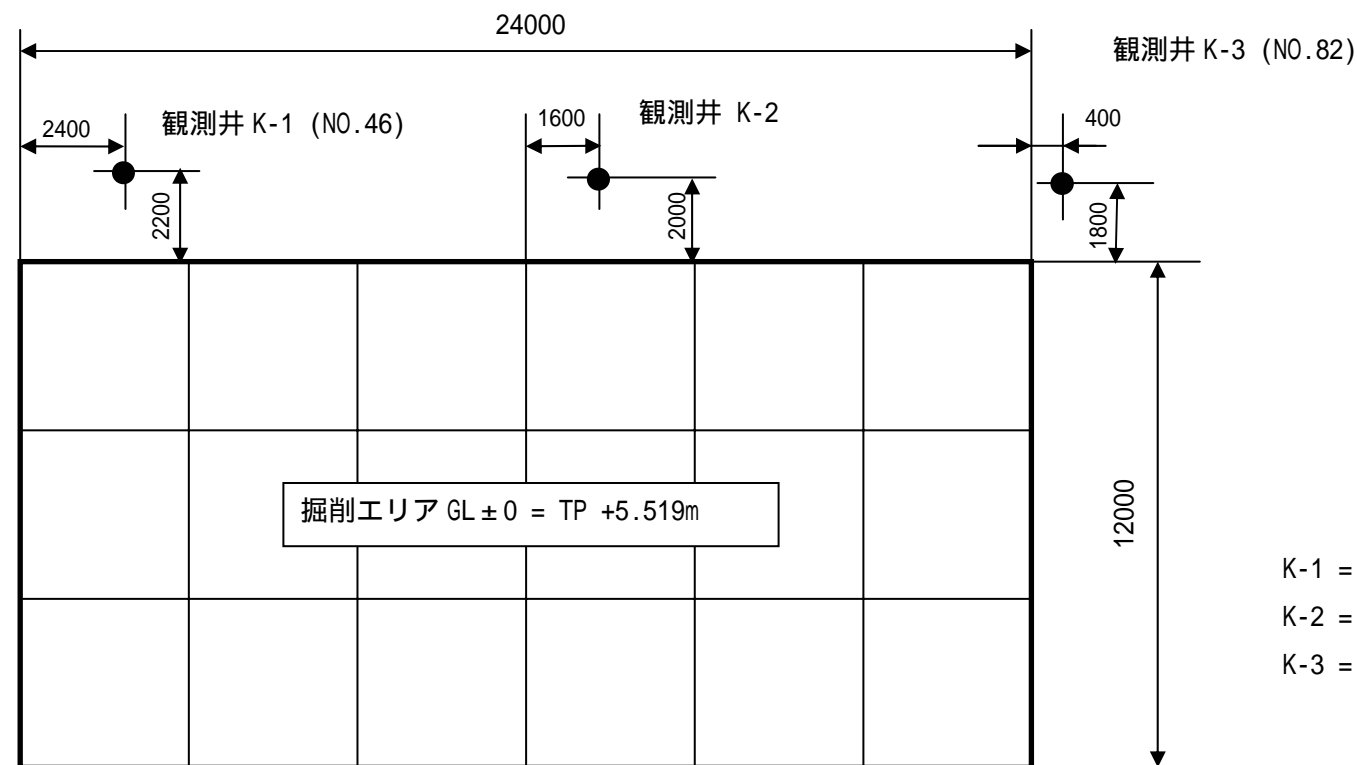


図 5.1 観測井位置図

5.1 地下水位測定結果

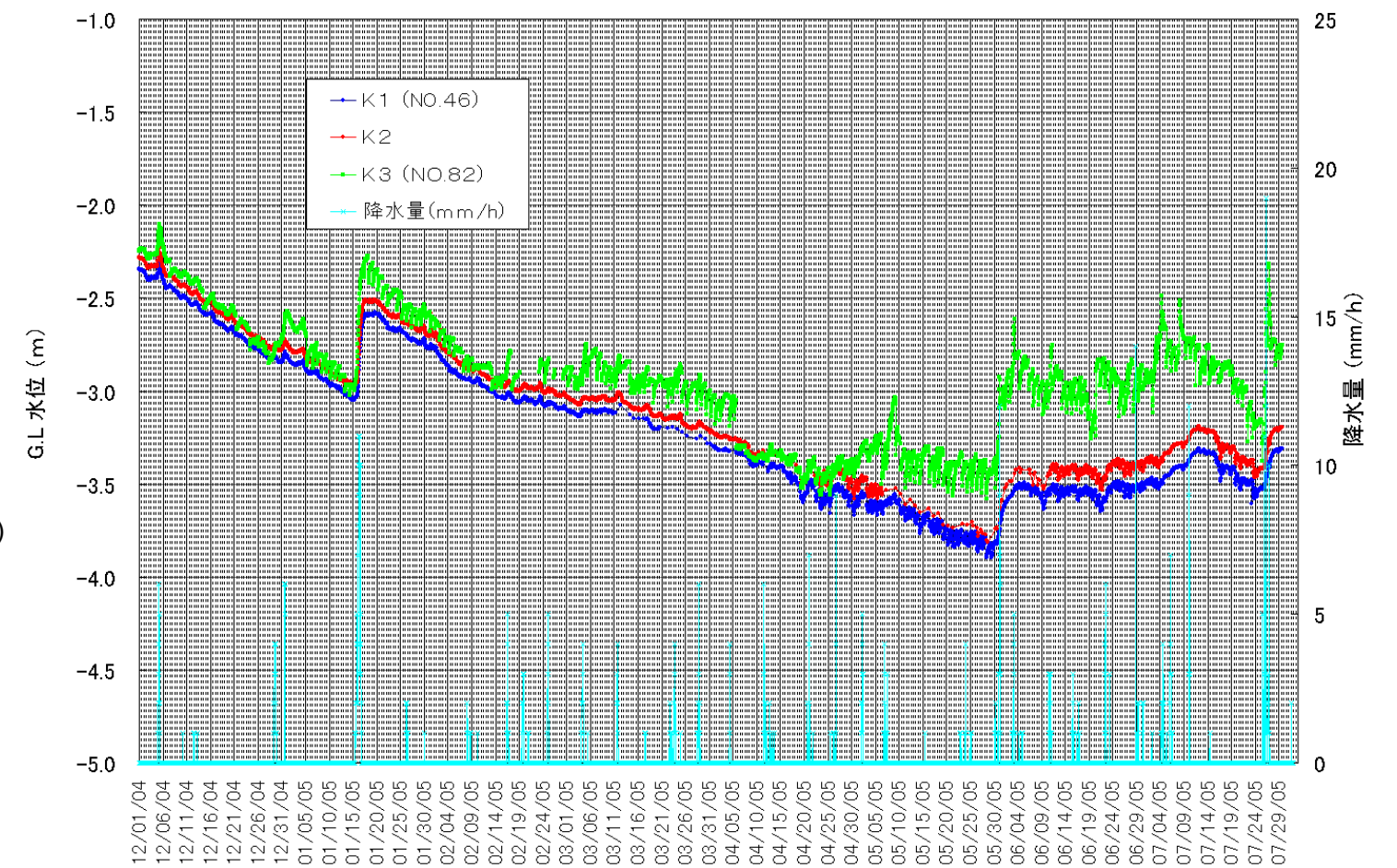
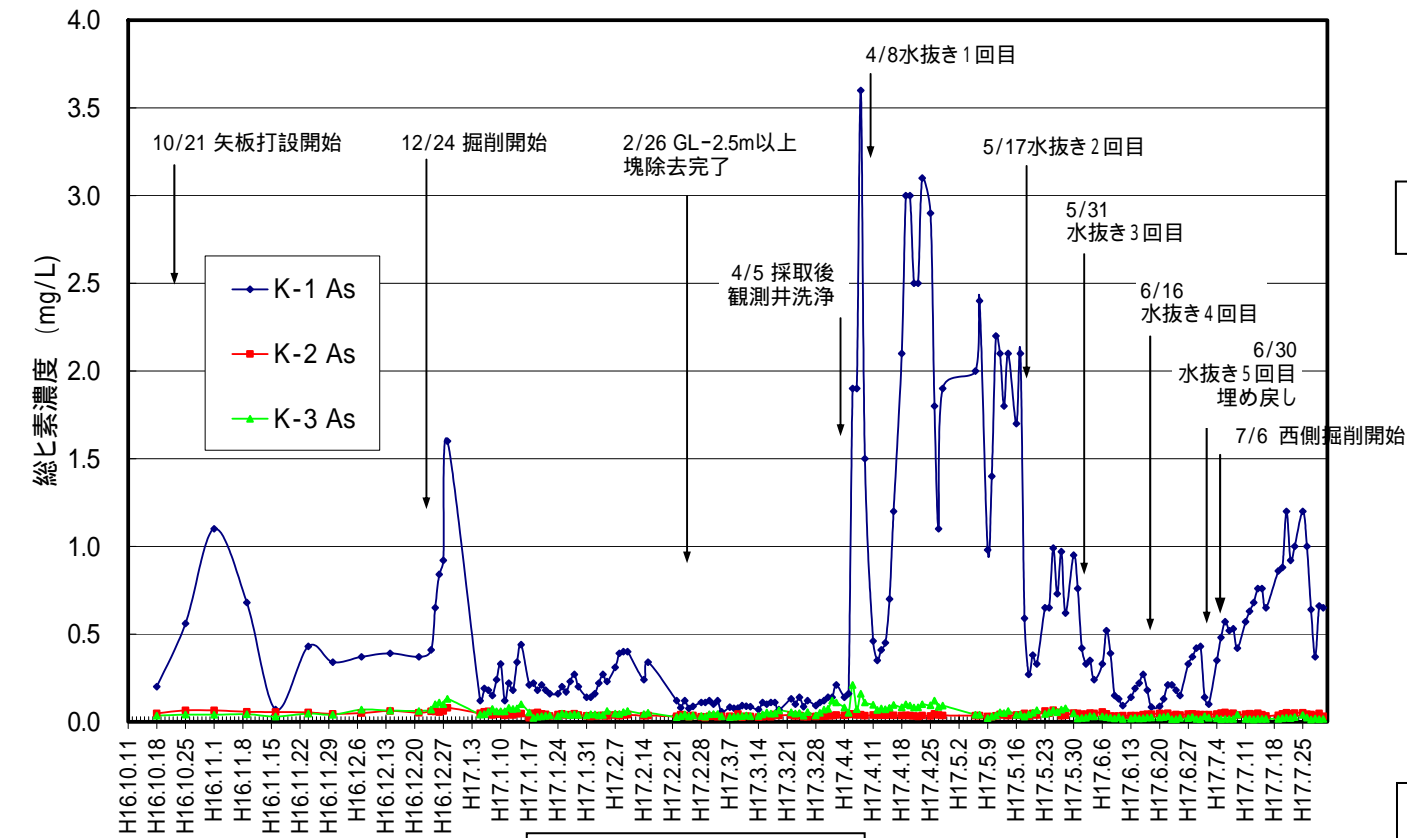


図 5.2 地下水レベルの推移 12月～

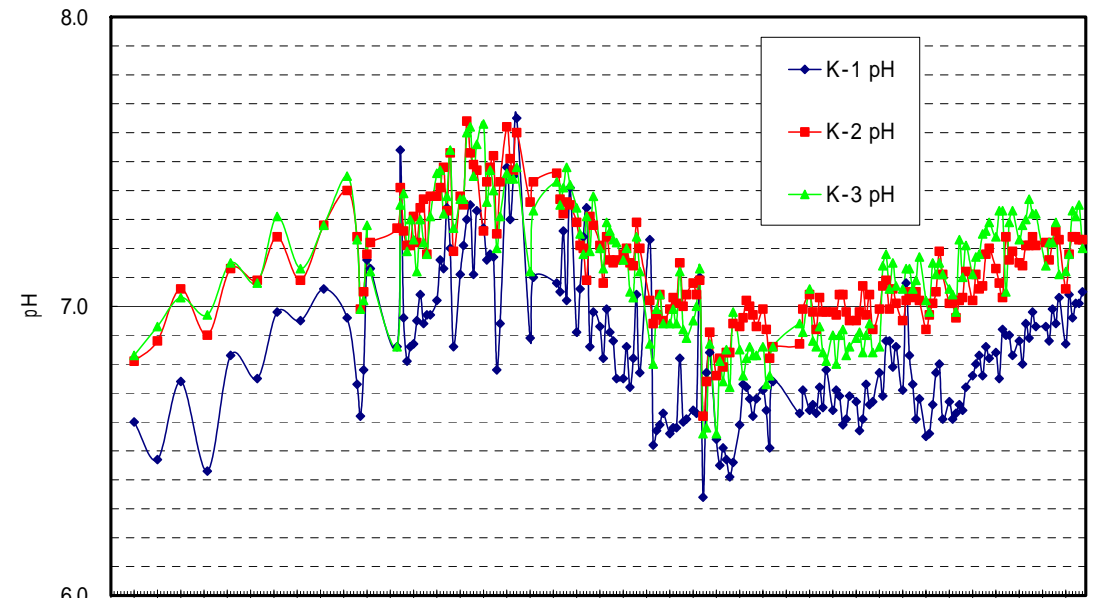
- K-1 = TP +5.599m、深さ 30m
- K-2 = TP +5.519m、深さ 15m
- K-3 = TP +5.599m、深さ 30m

5.2 地下水総ヒ素等分析結果

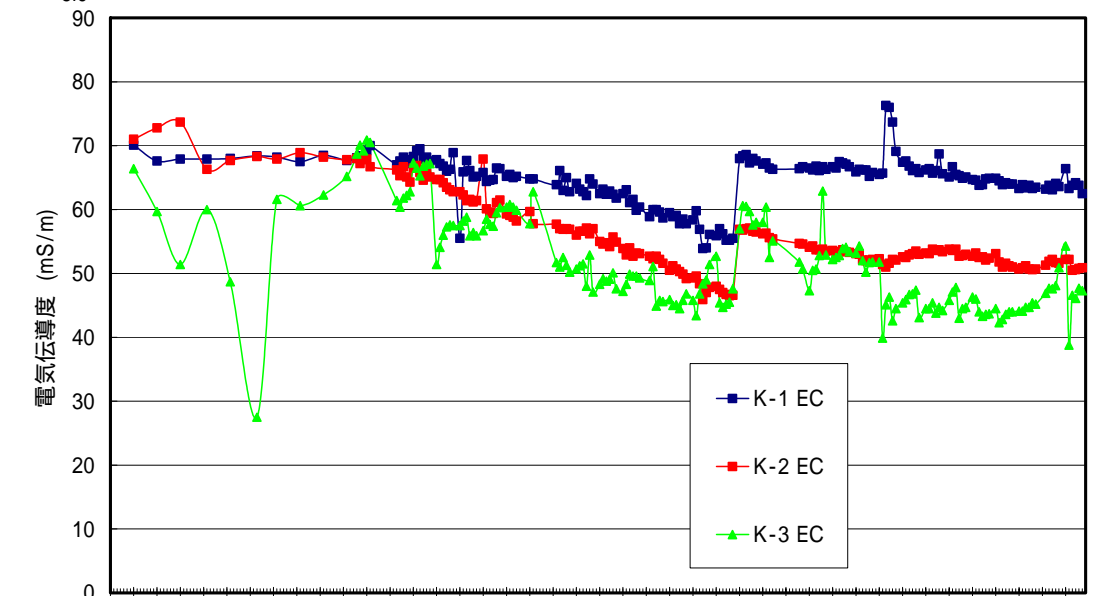


総ヒ素

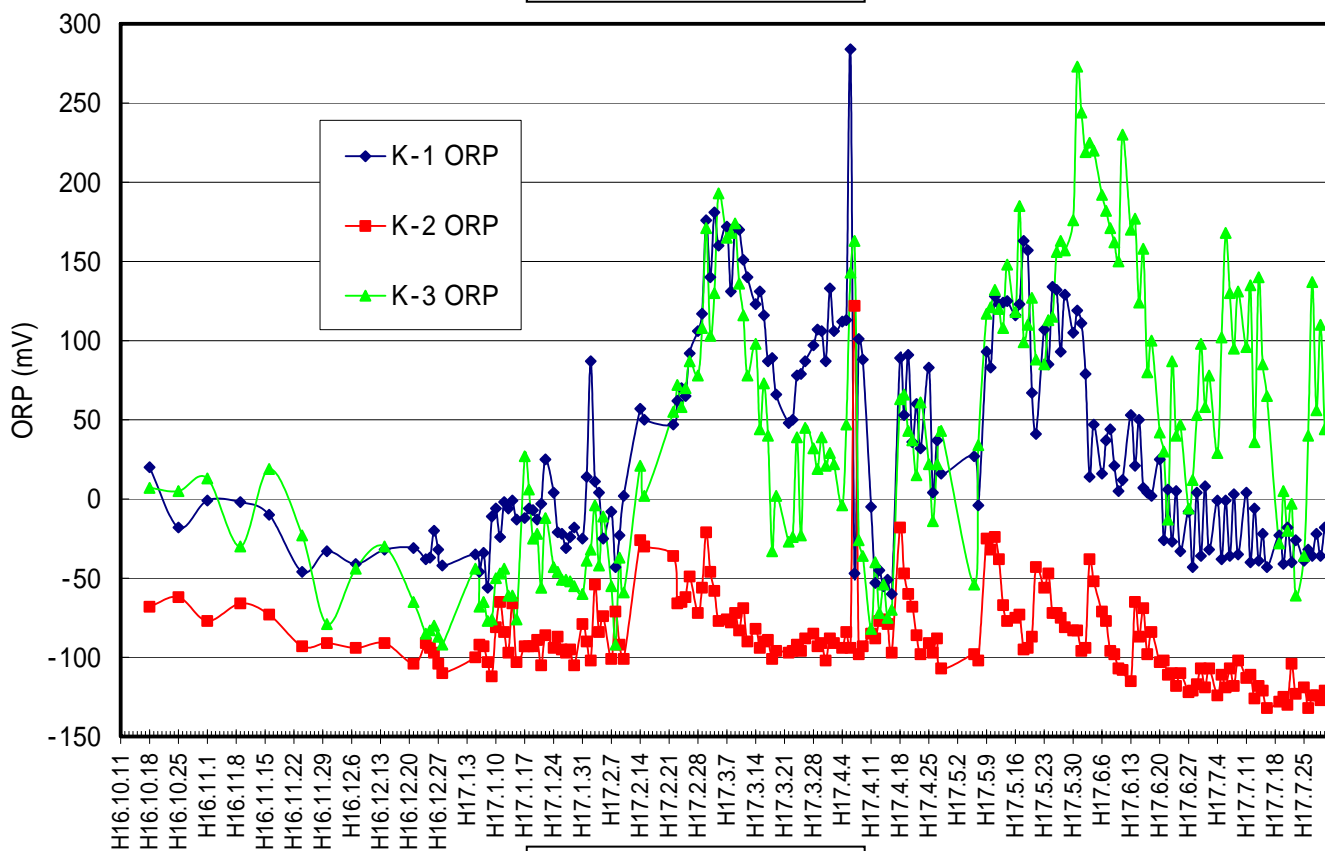
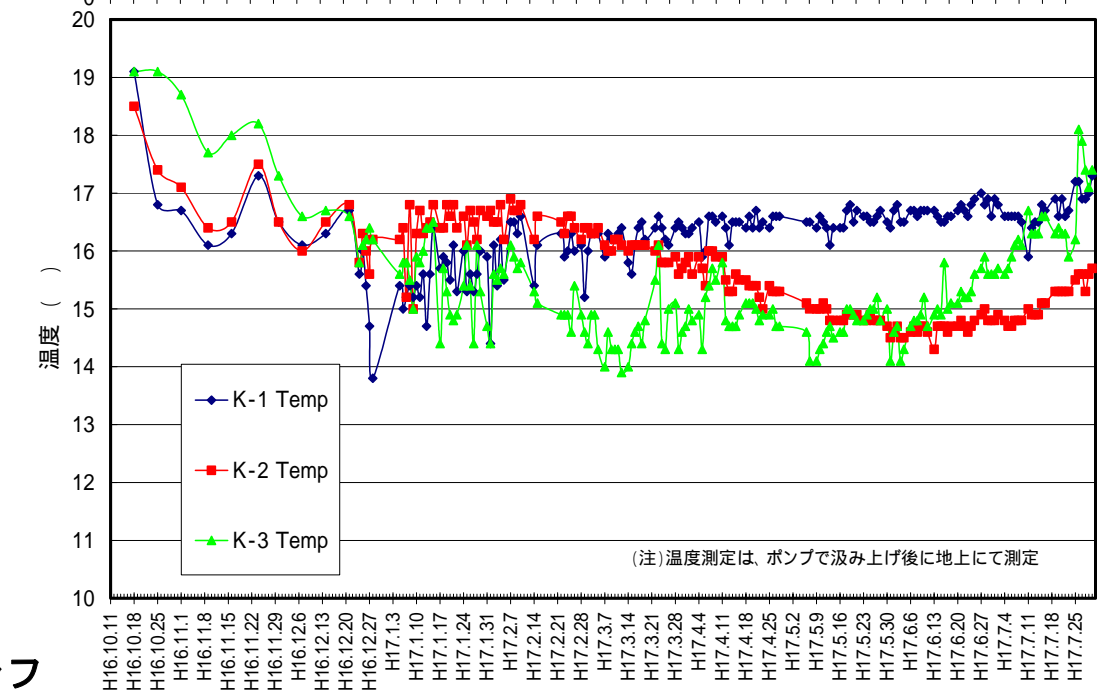
pH



電気伝導度



水温



酸化還元電位

図 5.3 地下水総ヒ素等分析結果グラフ

表 5.1 観測井 有機ヒ素分析結果 (国立環境研究所報告書より)

試料名	K-1						K-2						K-3					
	採水日	総ヒ素濃度 ($\mu\text{g/L}$)	有機ヒ素濃度 (ヒ素換算値 $\mu\text{g-As/L}$)					総ヒ素濃度 ($\mu\text{g/L}$)	有機ヒ素濃度 (ヒ素換算値 $\mu\text{g-As/L}$)					総ヒ素濃度 ($\mu\text{g/L}$)	有機ヒ素濃度 (ヒ素換算値 $\mu\text{g-As/L}$)			
PDMAO + As(III)			PMAA	DPMAO	PAA	DPAA	PDMAO + As(III)		PMAA	DPMAO	PAA	DPAA	PDMAO + As(III)		PMAA	DPMAO	PAA	DPAA
2004.12.27	1205.8	N.D.	N.D.	10.3	63.7	837.4	41.8	1.6	N.D.	7.1	2.0	7.9	120.6	3.0	1.7	12.2	N.D.	18.8
2005.1.6	113.2	N.D.	N.D.	12.3	N.D.	49.4	44.2	1.6	N.D.	6.0	1.6	5.9	39.0	2.2	1.1	7.8	N.D.	6.7
2005.1.12	178.8	N.D.	N.D.	13.5	28.3	89.5	41.6	1.4	N.D.	5.5	1.2	5.6	92.2	3.0	1.4	9.6	N.D.	12.8
2005.1.19	87.6	7.4	1.1	14.0	18.1	46.0	38.3	1.7	N.D.	5.2	N.D.	5.6	23.7	1.1	1.1	5.7	N.D.	4.3
2005.1.27	116.1	4.5	N.D.	12.0	9.8	52.4	34.4	1.7	N.D.	4.7	N.D.	5.1	45.2	2.0	1.1	6.8	N.D.	6.1
2005.2.2	117.4	4.7	1.6	12.5	11.2	53.1	38.3	1.4	N.D.	5.0	N.D.	5.7	53.0	2.2	1.2	8.5	N.D.	7.3
2005.2.9	332.3	N.D.	N.D.	17.1	29.5	234.1	56.3	1.5	3.0	26.5	N.D.	8.8	82.1	4.6	5.8	31.1	N.D.	27.9
2005.2.15	249.3	6.3	2.8	11.3	46.9	147.6	31.4	1.5	N.D.	4.2	N.D.	5.3	65.4	2.9	1.1	10.5	N.D.	10.1
2005.2.23	68.4	4.7	N.D.	11.8	7.4	24.5	35.1	1.2	N.D.	4.5	N.D.	4.3	32.4	2.1	1.9	9.3	N.D.	6.3
2005.3.1	68.4	5.0	1.3	12.3	9.4	23.5	35.6	1.2	N.D.	4.0	N.D.	4.6	36.8	2.3	1.0	7.7	N.D.	7.0
2005.3.8	50.1	4.7	N.D.	12.9	4.2	15.2	37.4	1.4	N.D.	3.7	N.D.	4.7	32.5	1.9	1.3	7.5	N.D.	5.8
2005.3.15	66.7	4.9	N.D.	12.8	8.4	22.9	35.2	1.3	N.D.	3.8	N.D.	5.0	51.0	2.2	1.4	8.5	N.D.	14.1
2005.3.22	77.5	5.4	N.D.	13.3	9.5	24.7	34.5	1.2	N.D.	3.6	N.D.	5.5	61.0	3.5	5.0	16.3	N.D.	19.7
2005.3.29	63.5	4.2	N.D.	13.8	4.2	26.5	38.2	1.0	N.D.	5.3	N.D.	5.9	67.0	3.1	4.2	18.9	N.D.	29.6
2005.4.5	99.6	4.1	N.D.	13.4	6.4	53.0	34.4	N.D.	N.D.	4.3	N.D.	5.8	57.2	2.5	3.8	16.3	N.D.	24.1
2005.4.12	300.3	N.D.	N.D.	12.0	12.9	241.9	34.0	N.D.	N.D.	3.9	N.D.	5.5	80.1	2.6	2.4	11.7	N.D.	17.0
2005.4.19	2577.3	N.D.	N.D.	N.D.	178.2	1887.8	36.5	N.D.	N.D.	4.1	N.D.	5.3	140.0	3.0	N.D.	8.8	N.D.	16.3
2005.4.26	1678.0	N.D.	N.D.	N.D.	189.4	1254.8	39.5	1.0	2.9	15.5	N.D.	8.1	176.3	6.0	7.0	49.0	N.D.	110.1
2005.5.6	1461.6	N.D.	N.D.	19.3	N.D.	1143.9	36.3	N.D.	1.1	4.9	N.D.	5.5	52.6	3.2	4.9	25.5	N.D.	15.7
2005.5.10	1123.6	N.D.	N.D.	22.6	163.1	874.3	37.9	N.D.	1.0	5.7	N.D.	6.5	51.6	2.9	4.7	19.8	N.D.	16.3
2005.5.17	1770.9	N.D.	N.D.	20.0	298.8	1296.0	36.2	N.D.	N.D.	5.4	N.D.	5.7	48.5	2.9	3.0	15.8	N.D.	10.7
2005.5.24	467.9	N.D.	7.1	16.8	84.8	283.2	34.2	N.D.	1.2	6.0	N.D.	5.4	53.5	3.3	5.6	25.2	N.D.	13.7
2005.5.31	485.0	N.D.	7.7	17.1	99.9	284.3	32.7	N.D.	1.5	5.5	N.D.	5.3	16.2	N.D.	1.6	4.6	N.D.	4.4
2005.6.7	444.3	N.D.	N.D.	6.7	40.9	382.9	32.3	1.2	1.1	4.8	N.D.	5.2	20.6	N.D.	2.3	7.4	N.D.	3.2
2005.6.14	144.6	5.4	2.7	15.3	9.1	83.9	32.9	N.D.	1.1	4.9	N.D.	5.7	19.4	1.1	1.7	6.6	N.D.	3.2
2005.6.21	110.3	5.9	1.6	17.1	4.9	48.2	41.4	1.2	1.2	5.3	N.D.	5.7	23.5	1.4	1.4	5.5	N.D.	5.2
2005.6.28	315.8	3.3	3.5	15.9	24.0	179.2	37.1	N.D.	N.D.	4.6	N.D.	4.7	32.2	1.3	3.1	7.8	N.D.	6.0
2005.7.5	289.7	4.9	3.2	15.0	17.2	165.6	35.5	1.0	N.D.	4.0	N.D.	3.9	10.4	N.D.	1.2	3.4	N.D.	1.1
2005.7.12	432.6	8.8	N.D.	15.8	34.8	254.1	30.8	1.2	N.D.	4.1	N.D.	4.2	11.7	N.D.	N.D.	4.4	N.D.	1.8
2005.7.19	586.6	5.3	5.8	15.8	106.2	339.4	33.8	1.1	N.D.	4.3	N.D.	4.2	19.9	N.D.	1.3	6.9	N.D.	2.6
2005.7.26	716.3	8.4	8.6	20.5	165.2	380.1	32.4	N.D.	N.D.	4.8	N.D.	4.1	18.5	N.D.	1.0	2.7	1.1	6.9