SEMI-ANNUAL GROUND WATER MONITORING REPORT

SECOND HALF OF 2002
(JULY THRU DECEMBER)

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY AND OCTOBER OF 2002

FIELD DATA SHEET OF

THIRD AND FOURTH QUARTER

CONTROLS

ZONE 1

ZONE 3

SW ALLUVIUM

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

July MONTH 3RD QUARTER, 2002

ZONE 1

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
515-A	07/10/02	99.50	7008.8	6909.30	6,830	5.88	15.9
604	07/16/02	97.98	7006.0	6908.02	6,120	4.73	16.6
614	07/10/02	99.60	7012 0	6912.40	7,120	6.79	16.0
TWQ-142	07/15/02	201.80	6983 4	6781.60	1,536	7.46	16.2
EPA-2	07/16/02	170.05	7019.5	6849.45	2,770	6.58	18.8
EPA-4	07/16/02	201.95	7069.8	6867.85	4,210	6.63	16.2
EPA-5	07/16/02	120.72	7011.5	6890.78	4,750	6.40	17.4
EPA-7	07/16/02	110.45	7011.7	6901.25	6,680	6.12	16.6
(QA/QC)EPA-2 DUP	7/16/02	170.22	7019.5	6849.28	2,810	6.67	17.9
(QA/QC)F. BLANK	7/10/02				38	6.32	27.5
TWQ-143	07/17/02	208.45	6989.6	6781.15			
EPA-8	07/16/02	213.70	7076.4	6862.70			
505-A	07/17/02	113.60	6963.1	6849.50			
502-A	07/17/02	193.40	7025.3	6831.90			
501-A	07/17/02	210.25	7048.0	6837.75			
504-A	07/17/02	202.35	7001.4	6799.05			
412	07/17/02	184.60	6979.4	6794.80			

COMMENTS.

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

July MONTH 3RD QUARTER, 20 02

ZONE 3

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
504-B	07/15/02	160.00	7001.8	6841.80	4,900	5.09	17.6
517	07/15/02	100.30	6971.75	6871.45	4,130	4.27	19.0
EPA-14	07/16/02	106.00	6965.8	6859.80	4,200	5.91	16.0
420	07/15/02	134.50	6982.6	6848.10	3,290	6.32	18.5
711	07/16/02	179.29	7042 75	6863.46	4,440	4.25	15.3
613	07/09/02	78.09	6961.3	6883.23	10,250	2.87	18.1
708	07/16/02	147.90	7012.0	6864.10	4,630	3.86	16.8
(QA/QC) 711 DUP.	7/16/02	179.75	7042.75	6863.00	4,400	4.57	15.8
(QA/QC) F.BLANK	7/16/02				28	7.35	30.3
NBL-1	07/15/02	169.25	6988.9	6819.65	3,140	6.84	21.4
EPA-9	07/16/02	169.57	7076 6	6907.03			
EPA-13	07/15/02	165.27	7032.9	6867.63	5,200	5.61	18.2
702	07/17/02	80.50	6974.2	6893.70			
710	07/17/02	157.50	7016.5	6859.00			
712	07/17/02	169.15	7022.2	6853.05			
713	07/17/02	163.75	7024.5	6860.75			
714	07/17/02	95.10	6962.9	6867.80			
701	07/17/02	82.50	6961.3	6878.80			
706	07/17/02	110.40	6972.5	6862.10			
707	07/17/02	147.80	7005.2	6857.40			
717	07/15/02	117.57	6972.3	6854.73	3,300	6,65	18.7
719	07/15/02	156.62	7002.0	6845.38	4,640	3.01	17.4
402	07/17/02	112.10	6968.2	6856.10			
446	07/17/02	157.00	6998.3	6841.30			
424	07/17/02	120.75	6973.1	6852.35			

COMMENTS

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

July MONTH 3RD QUARTER, 20 02

SOUTHWEST ALLIVIUM

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
509-D	07/08/02	69.33	6949.5	6880.17	5,660	6.50	16.1
624	07/09/02	48.75	6898.7	6849.95	5,250	6.67	16.0
627	07/09/02	54.98	6892.4	6837.42	5,230	7.24	19.5
632	07/08/02	41.39	6903 6	6862.21	6,700	6.44	18.3
801	07/08/02	48.49	6904 3	6855.81	6,410	6.59	18.5
802	07/08/02	44.29	6907 1	6862.81	6,910	6.43	17.9
803	07/08/02	57.92	6922 6	6864.68	6,450	6.57	16.7
808	07/08/02	45.62	6910.7	6865.08	6,470	6.57	17.3
GW-1	07/08/02	58.75	6916 5	6857.75	5,400	6.69	19.0
GW-2	07/08/02	52.92	6912.9	6859.98	5,250	6.45	18.1
GW-3	07/09/02	50.35	6910.0	6859.65	5,250	6.78	19.7
EPA-23	07/08/02	48.63	6926.5	6877.87	4,200	6.74	17.5
EPA-25	07/09/02	51.15	6903.4	6852.25	4,090	7.02	17.3
EPA-28	07/09/02	60.30	6917.9	6857.60	4,810	6.95	16.4
(QA/QC)624 DUP.	7/09/02	48.77	6898.7	6849.93	5,340	6.63	15.8
(QA/QC)							
805	07/17/02	49.60	6915 6	6866.00			
807	07/17/02	53.55	6923 4	6869.85			

COMMENTS

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

October MONTH 4th QUARTER, 2002

ZONE 1

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
515-A	10/09/02	97.93	7008.8	6910.87	6,990	5.74	13.4
604	10/09/02	98.13	7006.0	6907.87	6,330	4.92	13.7
614	10/09/02	99.70	7012.0	6912.30	7,280	6.70	13.2
TWQ-142	10/14/02	201.87	6983.4	6781.53	1,611	7.44	11.9
EPA-2	10/15/02	170.34	7019.5	6849.16	2,860	6.38	13.5
EPA-4	10/15/02	202.10	7069.8	6867.70	4,300	6.47	15.2
EPA-5	10/15/02	120.87	7011.5	6890.63	4,840	6.10	15.3
EPA-7	10/15/02	110.53	7011.7	6901.17	6,820	6.14	14.6
(QA/QC) EPA-2 DUP	10/15/02	170.48	7019.5	6849.02	2,870	6.58	13.9
(QA/QC) F.Blank	10/09/02				30	6.20	18.3
TWQ-143	10/18/02	208.27	6989.6	6781.33			
EPA-8	10/15/02	213.77	7076.4	6862.63			
505-A	10/18/02	113.62	6963.1	6849.48			
502-A	10/18/02	193.22	7025.3	6832.08			
501-A	10/18/02	210.07	7048.0	6837.93			
504-A	10/18/02	202.10	7001.4	6799.30			
412	10/18/02	184.43	6979.4	6794.97			

COMMENTS

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

October MONTH 4th QUARTER, 2002

ZONE 3

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
504-B	10/14/02	160.10	7001.8	6841.70	5,010	5.06	13.2
517	10/15/02	100.55	6971.75	6871.20	4,250	4.20	12.8
EPA-14	10/14/02	106.40	6965.8	6859.40	4,230	6.58	14.6
420	10/14/02	135.00	6982.6	6847.60	3,400	6.25	13.8
711	10/14/02	179.26	7042.75	6863.49	4.570	4.38	14.4
613	10/08/02	78.00	6961.3	6883.30	10,300	2.77	15.1
708	10/14/02	148.07	7012.0	6863.93	4,770	3.83	14.5
(QA/QC)711 DUP.	10/14/02	179.80	7042.75	6862.95	4,530	4.72	14.6
(QA/QC)F.Blank	10/15/02				31	7.17	27.0
NBL-1	10/15/02	169.36	6988.9	6819.54	3,160	7.18	18.0
EPA-9	10/15/02	169.64	7076.6	6906.96			
EPA-13	10/14/02	165.38	7032.9	6867.52	5,260	5.70	14.8
702	10/18/02	80.50	6974.2	6893.70			
710	10/18/02	157.50	7016.5	6859.00			
712	10/18/02	169.00	7022.2	6853.20			
713	10/18/02	163.65	7024.5	6860.85			
714	10/18/02	95.39	6962.9	6867.51			
701	10/18/02	82.80	6961.3	6878.50			
706	10/18/02	110.55	6972.5	6861.95			
707	10/18/02	147.85	7005.2	6857.35			
717	10/14/02	117.83	6972.3	6854.47	3,440	6.81	14.5
719	10/14/02	156.05	7002.0	6845.95	4,680	3.24	14.4
402	10/18/02	112.30	6968.2	6855.90			
446	10/18/02	156.25	6998.3	6842.05			
424	10/18/02	120.90	6973.1	6852.20			

COMMENTS:

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE

October MONTH 4th QUARTER, 2002

SOUTHWEST ALLIVIUM

WELL NO.	DEPT REC./ SAMPLE DATE	DEPTH TO WATER (FT.)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (µs/cm)	FIELD pH (units)	FIELD TEMP. (°c)
509-D	10/07/02	69.72	6949.5	6879.78	5,400	6.37	14.0
624	10/08/02	48.80	6898.7	6849.90	5,280	6.51	14.6
627	10/07/02	55.10	6892.4	6837.30	5,310	7.21	15.6
632	10/08/02	41.52	6903.6	6862.08	6,710	6.48	15.3
801	10/08/02	48.18	6904.3	6856.12	6,510	6.50	13.8
802	10/07/02	44.55	6907.1	6862.55	6,920	6 58	15.2
803	10/08/02	58.00	6922.6	6864.60	6.430	6.56	13.9
808	10/07/02	45.89	6910.7	6864.81	6,540	6.49	14.9
GW-1	10/08/02	58.98	6916.5	6857.52	5,700	6.75	14.7
GW-2	10/08/02	53.00	6912.9	6859.90	5,510	6.51	13.3
GW-3	10/07/02	50.50	6910.0	6859.50	5,430	6.67	17.4
EPA-23	10/08/02	48.65	6926.5	6877.85	4,350	6.41	12.8
EPA-25	10/07/02	51.40	6903.4	6852.00	4,080	7.11	15.3
EPA-28	10/08/02	60.57	6917.9	6857.33	4,960	7.01	16.0
(QA/QC)624 DUP.	10/08/02	48.85	6898.7	6849.85	5,300	6.58	14.7
(QA/QC)							
805	10/18/02	49.84	6915.6	6865.76			
807	10/18/02	53.65	6923.4	6869.75			

COMMENTS:

QUARTERLY WATER LEVELS
3RD QUARTER 2002

ZONE - 1

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
515-A	7-10-02	0920	99.50'	7008.8	6909.30
604	7-16-02	1330	97.98'	7006.0	6908.02
614	7-10-02	0830	99.60'	7012.0	6912.40
EPA-2	7-16-02	1115	170.05'	7019 5	6849.45
EPA-4	7-16-02	1520	201.95'	7069 8	6867.85
EPA-5	7-16-02	1440	120.72'	7011.5	6890.78
EPA-7	7-16-02	1405	110.45'	7011.7	6901.25
EPA-8	7-16-02	1545	213.70'	7076 4	6862.70
TWQ-142	7-15-02	0930	201.80'	6983.4	6781.60
TWQ-143	7-17-02	1300	208.45'	6989.6	6781.15
505-A	7-17-02	1455	113.60'	6963.1	6849.50
502-A	7-17-02	1345	193.40'	7025.3	6831.90
501-A	7-17-02	1335	210.25	7048.0	6837.75
504-A	7-17-02	1325	202.35'	7001.4	6799.05
412	7-17-02	1315	184.60'	6979.4	6794.80

QUARTERLY WATER LEVELS
3RD QUARTER 2002

ZONE - 3

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
420	7-15-02	1400	134.50'	6982.6	6848.10
711	7-16-02	0930	179.29'	7042.75	6863.46
504-B	7-15-02	1110	160.00'	7001.8	6841.80
EPA-9	7-16-02	1550	169.57'	7076 6	6907.03
EPA-13	7-15-02	1320	165.27'	7032.9	6867.63
EPA-14	7-16-02	0830	106.00'	6965 8	6859.80
702	7-17-02	1500	80.50'	6974.2	6893.70
710	7-17-02	1400	157.50'	7016 5	6859.00
712	7-17-02	1405	169.15'	7022 2	6853.05
713	7-17-02	1415	163.75'	7024 5	6860.75
714	7-17-02	1445	95.10'	6962 9	6867.80
613	7-9-02	1455	78.09'	6961.3	6883.23
701	7-17-02	1450	82.50'	6961.3	6878.80
706	7-17-02	1440	110.40'	6972 5	6862.10
707	7-17-02	1350	147.80'	7005.2	6857.40
717	7-15-02	1430	117.57'	6972.3	6854.73
719	7-15-02	1145	156.62'	7002.0	6845.38
402	7-17-02	1430	112.10'	6968.2	6856.10
424	7-17-02	1425	120.75'	6973 1	6852.35
446	7-17-02	1320	157.00'	6998.3	6841.30
517	7-15-02	1510	100.30'	6971.75	6871.45
708	7-16-02	1030	147.90'	7012.0	6864.10
NBL-1	7-15-02	1010	169.25'	6988.9	6819.65

QUARTERLY WATER LEVELS
3RD QUARTER 2002

SOUTHWEST ALLUVIUM

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
509-D	7-8-02	0930	69.33'	6949.5	6880.17
632	7-8-02	1515	41.39'	6903.6	6862.21
GW-1	7-8-02	1440	58.75'	6916.5	6857.75
GW-2	7-8-02	1410	52.92'	6912 9	6859.98
EPA-23	7-8-02	1020	48.63'	6926.5	6877.87
EPA-28	7-9-02	1015	60.30'	6917 9	6857.60
624	7-9-02	0920	48.75'	6898 7	6849.95
627	7-9-02	1410	54.98'	6892 4	6837.42
805	7-17-02	1520	49.60'	6915.6	6866.00
807	7-17-02	1515	53.55'	6923.4	6869.85
EPA-25	7-9-02	1150	51.15'	6903 4	6852.25
GW-3	7-9-02	1100	50.35'	6910.0	6859.65
801	7-8-02	1335	48.49'	6904 3	6855.81
802	7-8-02	1300	44.29'	6907 1	6862.81
803	7-8-02	1055	57.92'	6922 6	6864.68
808	7-8-02	1125	45.62'	6910.7	6865.08

QUARTERLY WATER LEVELS
4TH QUARTER 2002

ZONE - 1

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
515-A	10-9-02	0930	97.93'	7008.8	6910.87
604	10-9-02	1010	98.13'	7006.0	6907.87
614	10-9-02	0850	99.70'	7012.0	6912.30
EPA-2	10-15-02	0920	170.34'	7019.5	6849.16
EPA-4	10-15-02	1210	202.10'	7069 8	6867.70
EPA-5	10-15-02	1130	120.87'	7011.5	6890.63
EPA-7	10-15-02	1050	110.53'	7011.7	6901.17
EPA-8	10-15-02	1235	213.77'	7076.4	6862.63
TWQ-142	10-14-02	0830	201.87'	6983 4	6781.53
TWQ-143	10-18-02	1205	208.27'	6989.6	6781.33
505-A	10-18-02	1055	113.62'	6963 1	6849.48
502-A	10-18-02	1110	193.22'	7025 3	6832.08
501-A	10-18-02	1115	210.07'	7048.0	6837.93
504-A	10-18-02	1155	202.10'	7001.4	6799.30
412	10-18-02	1200	184.43'	6979 4	6794.97

QUARTERLY WATER LEVELS
4TH QUARTER 2002

ZONE - 3

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
420	10-14-02	1050	135.00'	6982.6	6847.60
711	10-14-02	1340	179.26'	7042.75	6863.49
504-B	10-14-02	0940	160.10'	7001.8	6841.70
EPA-9	10-15-02	1230	169.64'	7076.6	6906.96
EPA-13	10-14-02	1430	165.38'	7032 9	6867.52
EPA-14	10-14-02	1310	106.40'	6965 8	6859.40
702	10-18-02	1045	80.50'	6974.2	6893.70
710	10-18-02	1120	157.50'	7016 5	6859.00
712	10-18-02	1130	169.00'	7022.2	6853.20
713	10-18-02	1135	163.65'	7024 5	6860.85
714	10-18-02	1100	95.39'	6962.9	6867.51
613	10-8-02	1500	78.00'	6961 3	6883.30
701	10-18-02	1050	82.80'	6961.3	6878.50
706	10-18-02	1105	110.55'	6972 5	6861.95
707	10-18-02	1125	147.85'	7005 2	6857.35
717	10-14-02	1125	117.83'	6972.3	6854.47
719	10-14-02	1020	156.05'	7002 0	6845.95
402	10-18-02	1215	112.30'	6968.2	6855.90
424	10-18-02	1220	120.90'	6973.1	6852.20
446	10-18-02	1140	156.25'	6998 3	6842.05
517	10-15-02	0840	100.55'	6971.75	6871.20
708	10-14-02	1505	148.07'	7012.0	6863.93
NBL-1	10-15-02	1430	169.36'	6988.9	6819.54

QUARTERLY WATER LEVELS
4TH QUARTER 2002

SOUTHWEST ALLUVIUM

WELL NO.	DATE	TIME	DEPTH TO WATER	REFERENCE ELEVATION	TOP OF WATER ELEVATION
509-D	10-7-02	0915	69.72'	6949.5	6879.78
632	10-8-02	1420	41.52'	6903 6	6862.08
GW-1	10-8-02	1105	58.98'	6916.5	6857.52
GW-2	10-8-02	1030	53.00'	6912 9	6859.90
EPA-23	10-8-02	0845	48.65'	6926 5	6877.85
EPA-28	10-8-02	1340	60.57'	6917.9	6857.33
624	10-8-02	1130	48.80'	6898 7	6849.90
627	10-7-02	1505	55.10'	6892.4	6837.30
805	10-18-02	1030	49.84'	6915 6	6865.76
807	10-18-02	1035	53.65'	6923 4	6869.75
EPA-25	10-7-02	1210	51.40'	6903 4	6852.00
GW-3	10-7-02	1410	50.50'	6910 0	6859.50
801	10-8-02	0955	48.18'	6904 3	6856.12
802	10-7-02	1030	44.55'	6907.1	6862.55
803	10-8-02	0920	58.00'	6922 6	6864.60
808	10-7-02	1100	45.89'	6910.7	6864.81

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY AND OCTOBER 2002

ZONE 1

515-A

*604

*614

TWQ-142

EPA-2 (Also attached revised report for 1st QR. 2002)

*EPA-4 (Also attached revised report for 1st Qr. 2002)

*EPA-5

*EPA-7

LEVELS ONLY

TWQ-143

EPA-8

505-A

502-A

501-A

504-A

412

*POINT OF COMPLIANCE WELLS

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID	515-A	515-A	515-A	515-A
LABORATORY ID:	C02010514-002	C02040227-002	C02070401-002	C02100484-002
SAMPLE DATE/TIME:	01/14/2002 09.50	04/02/2002 14:45	07/10/2002 09 20	10/09/2002 09:30
DATE RECEIVED:	01/18/2002 10:00	04/08/2002 10:30	07/12/2002 09.20	10/14/2002 10 00
REPORT DATE:	February 25, 2002	April 27, 2002	August 9, 2002	November 5, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-5-4-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	501	492	470	428
Magnesium	EPA 200 7	mg/L	1 0	887	855	850	778
Sodium	EPA 200 7	mg/L	1 0	349	412	401	386
Potassium	EPA 200 7	mg/L	1 0	14 6	15 2	13 4	12.5
Bicarbonate	SM 2320-B	mg/L	0 10	212	214	211	210
Sulfate	EPA 200 7	mg/L	1 0	4410	4790	4420	4270
Chloride	EPA 200 7	mg/L	1 0	305	279	250	228
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	2 07	1 75	2 39	2 95
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	60 5	61 9	61 5	63 0
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7680	7670	7750	6900
pH	SM 4500-H-B	std units	0 10	6 30	6 57	6 33	6 61
Trace Metals, dissolved							
Aluminum	EPA 200 7	mg/L	0 10	3 00	2 90	2 40	3 10
Arsenic III	SM 3114-C	mg/L	0 001	0 002	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 10	0 09	0 09	0 08
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	15 8	15 3	12 4	13 3
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 26	0 23	0 18	0 20
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0011	0 0009	0 0013	0 0020
Radium 226	EPA 903 0	pCi/L	0.2	3 2	3 4	3 6	3 5
Radium Error Estimate ±				0 3	0 4	0 4	0.3
Radium 228	EPA 904 0	pCi/L	1 0	6 6	2 9	6 8	3 1
Radium Error Estimate ±				1 0	1 0	1 6	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Ra & U	EPA 900 0	pCi/L	1 0	3 5	6 0	8 0	9 3
G. Alpha Error Estimate ±				1 0	1 0	1 7	1.1
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	149	162	162	203
Quality Assurance Data			**Target Range**				
Anion		meq		108	116	107	103
Cation		meq		116	115	113	104
SM A/C Balance		%	-5 - +5	3 25	-0 20	2 72	0 46
Calc TDS		mg/L		6859	7242	6798	6504
TDS A/C Balance		dec %	0 80 - 1 20	1.12	1 06	1 14	1 06

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	604	604	604	604
LABORATORY ID	C02010514-003	C02040488-004	C02070704-004	C02100484-003
SAMPLE DATE/TIME:	01/14/2002 10.20	04/09/2002 12:30	07/16/2002 13.30	10/09/2002 10:10
DATE RECEIVED:	01/18/2002 10.00	04/15/2002 10 00	07/22/2002 10 00	10/14/2002 10.00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 5, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Thrid 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	516	446	439	431
Magnesium	EPA 200 7	mg/L	1 0	882	790	805	775
Sodium	EPA 200 7	mg/L	1 0	235	261	271	258
Potassium	EPA 200 7	mg/L	1 0	13.6	12 2	13 5	11 4
Bicarbonate	SM 2320-B	mg/L	0 10	6 7	6 7	6 7	7 3
Sulfate	EPA 200 7	mg/L	1 0	4540	4390	4460	4380
Chloride	EPA 200 7	mg/L	1 0	67 5	58 1	65 0	56 5
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 13	0 23	0 66	0 64
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	66 0	70 1	71 7	68 6
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7390	7500	7500	5790
pH	SM 4500-H-B	std units	0 10	4 80	4.73	4 78	4 79
Trace Metals, dissolved							
Aluminum	EPA 200 7	mg/L	0 10	15 3	13 2	11 4	14 6
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	0 006	0 007	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 32	0 33	0 28	0 26
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	11 0	11.2	10 4	9 67
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 40	0 40	0 28	0 30
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0016	0 0016	< 0 0003	0 0018
Radium 226	EPA 903 0	pCi/L	0 2	2 9	2 6	2 9	3 3
Radium Error Estimate ±				0 3	0 3	0 3	0 3
Radium 228	EPA 904 0	pCi/L	1 0	9 3	4 5	3 5	5 6
Radium Error Estimate ±				1 0	1 0	1 3	1 1
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0.2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	4 5	3 3	5 3	9 6
G Alpha Error Estimate ±				1 2	1 0	1 0	1 1
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	3 0	< 1 0	< 1 0	3 2
Quality Assurance Data			**Target Range**				
Anion		meq		101	98 2	100	98
Cation		meq		110	100	102	98
SM A/C Balance		%	-5 - +5	4 33	1 11	0 89	0 18
Calc TDS		mg/L		6561	6283	6386	6230
TDS A/C Balance		dec %	0 80 - 1 20	1 13	1 19	1 17	0 93

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM ZONE 1 MONITOR WELLS

WELL ID.	614	614	614	614
LABORATORY ID	C02010514-001	C02040227-001	C02070401-001	C02100484-001
SAMPLE DATE/TIME:	01/14/2002 09.15	04/02/2002 14 15	07/10/2002 08:30	10/09/2002 08 50
DATE RECEIVED:	01/18/2002 10 00	04/08/2002 10.30	07/12/2002 10 00	10/14/2002 10 00
REPORT DATE·	February 25, 2002	April 27, 2002	August 9, 2002	November 5, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-5-4-2002	TE-10-7-2002	TE-12-10-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1.0	602	603	577	520
Magnesium	EPA 200 7	mg/L	1 0	751	730	599	621
Sodium	EPA 200 7	mg/L	1 0	356	427	413	400
Potassium	EPA 200 7	mg/L	1 0	16 7	16 8	14 0	12 4
Bicarbonate	SM 2320-B	mg/L	0 10	1490	1460	1430	1440
Sulfate	EPA 200 7	mg/L	1 0	3460	3780	3360	3080
Chloride	EPA 200 7	mg/L	1 0	332	312	286	286
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	123	119	100	87 0
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	86 7	82 7	82 0	79 2
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7110	7120	6980	5220
pH	SM 4500-H-B	std units	0 10	7 30	7 60	7 31	7 66
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	0 28	0 28	0 23	0 32
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	0 003	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0501	0 0467	0 0508	0 0439
Radium 226	EPA 903 0	pCi/L	0 2	1 1	< 0 2	1 1	0 9
Radium Error Estimate ±				0 2	-	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	5 4	< 1 0	2 3	< 1 0
Radium Error Estimate ±				1 0	-	1 4	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	< 1 0	1 5	2 2	1 3
G Alpha Error Estimate ±				-	1 0	1 1	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	230	222	222	228

Quality Assurance Data		Target Range				
Anion	meq		112	117	107	101
Cation	meq		117	118	104	102
SM A/C Balance	%	-5 - +5	2 33	0 47	-1 47	0 10
Calc TDS	mg/L		6806	7119	6456	6103
TDS A/C Balance	dec %	0 80 - 1 20	1 04	1 00	1 08	0 86

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UNC MINING AND MILLING· CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM. ZONE 1 MONITOR WELLS

WELL ID:	TWQ-142	TWQ-142	TWQ-142	TWQ-142
LABORATORY ID	C02010346-001	C02040488-001	C02070704-001	C02100686-001
SAMPLE DATE/TIME:	01/07/2002 09 05	04/08/2002 14:00	07/15/2002 09:30	10/14/2002 08:30
DATE RECEIVED.	01/11/2002 10.00	04/15/2002 10.00	07/22/2002 10.00	10/18/2002 10.00
REPORT DATE:	February 1, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED.	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAI #:	TE-1-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	19 8	19 4	18 6	20 4
Magnesium	EPA 200 7	mg/L	1 0	8 70	8 50	8 50	8 70
Sodium	EPA 200 7	mg/L	1 0	294	307	313	308
Potassium	EPA 200 7	mg/L	1 0	3 4	2 9	4 5	3 1
Bicarbonate	SM 2320-B	mg/L	0 10	236	239	239	237
Sulfate	EPA 200 7	mg/L	1 0	560	556	607	536
Chloride	EPA 200 7	mg/L	1 0	21.3	21.5	18 6	17 7
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 20	0 26	0 15	0 11
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0.10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	1060	1070	1060	998
pH	SM 4500-H-B	std units	0 10	7 90	7 59	8 06	8 00
Trace Metals, dissolved							
Aluminum	EPA 200 7	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	0 004
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0.05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	0 02	0 02	0 02	0 02
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0.10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	< 0 0003	< 0 0003	< 0 0003	0 0003
Radium 226	EPA 903 0	pCi/L	0.2	0 6	0 3	0 3	0 8
Radium Error Estimate ±				0 2	0 2	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	1.9	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				1.2	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/l	1 0	< 1 0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 601	µg l	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		16 1	16 1	17 1	15 6
Cation	meq		14 6	15 1	15 4	15 2
SM A/C Balance	%	-5 - +5	-5 02	-3 18	-5 30	-1 08
Calc TDS	mg/L		1026	1036	1090	1013
TDS A/C Balance	dec %	0 80 - 1 20	1 03	1 03	0 97	0 99

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	EPA-2	EPA-2	EPA-2	EPA-2
LABORATORY ID:	C02010514-007	C02040488-002	C02070704-002	C02100686-002
SAMPLE DATE/TIME:	01/14/2002 13:50	04/09/2002 10:20	07/16/2002 11:15	10/15/2002 09:20
DATE RECEIVED:	01/18/2002 10:00	04/15/2002 10:00	07/22/2002 10:00	10/18/2002 10.00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED.	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Revised(see attachment)

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	406	356	352	398
Magnesium	EPA 200 7	mg/L	1 0	177	159	161	178
Sodium	EPA 200 7	mg/L	1 0	168	186	188	189
Potassium	EPA 200 7	mg/L	1 0	8 0	6 2	6 0	5 9
Bicarbonate	SM 2320-B	mg/L	0 10	355	379	448	432
Sulfate	EPA 200 7	mg/L	1 0	1550	1570	1510	1700
Chloride	EPA 200 7	mg/L	1 0	24 8	25 4	24 6	21 0
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 43	0 45	0 60	0 50
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	2730	2760	2760	2630
pH	SM 4500-H-B	std units	0 10	7 20	7 29	7 54	7.72
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	0 002
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0.05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	1 34	1 28	1 28	1 12
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0010	0 0008	< 0 0003	0 0009
Radium 226	EPA 903 0	pCi/L	0 2	1 3	1 1	1.7	1 7
Radium Error Estimate ±				0 2	0 2	0 2	0 3
Radium 228	EPA 904 0	pCi/L	1 0	11 7	1 7	< 1.0	3 0
Radium Error Estimate ±				1 0	1 0	-	1 0
Thorium 230	EPA 907.0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	1 3	1 8	1 7	< 1 0
G Alpha Error Estimate ±				1 0	1 0	1 0	-
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		38 8	39 6	39 5	43 1
Cation	meq		42 7	39 4	39 5	43 2
SM A/C Balance	%	-5 - +5	4 72	-0 31	-0 06	0.12
Calc TDS	mg/L		2514	2494	2468	2710
TDS A/C Balance	dec %	0 80 - 1 20	1 09	1 11	1 12	0 97

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	EPA-2	EPA-2	EPA-2	EPA-2
LABORATORY ID.	01-31997-4	01-34625-3	C01100431-001	C02010514-007
SAMPLE DATE/TIME:	04/02/2001 14:10	07/16/2001 13:25	10/09/2001 08:30	01/14/2002 13.50
DATE RECEIVED.	04/06/2001 10:30	07/20/2001 10 30	10/12/2001 10.00	01/18/2002 10.00
REPORT DATE·	April 24, 2001	August 20, 2001	November 07, 2001	February 25, 2002
QUARTER REPRESENTED·	Second 2001	Third 2001	Fourth 2001	First 2002
UNC SUBMITTAL #:	TE-6-4-2001	TE-11-7-2001	TE-16-10-2001	TE-2-1-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	408	341	330	406
Magnesium	EPA 200 7	mg/L	1 0	182	159	150	177
Sodium	EPA 200 7	mg/L	1 0	173	182	182	168
Potassium	EPA 200 7	mg/L	1 0	6 0	6 9	6 2	8 0
Bicarbonate	SM 2320-B	mg/L	0 10	425	430	371	355
Sulfate	EPA 200 7	mg/L	1 0	1600	1630	1420	1550
Chloride	EPA 200 7	mg/L	1 0	23 7	28 3	25 1	24 8
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 53	0 53	0 36	0 43
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	2730	2770	2760	2730
pH	SM 4500-H-B	std units	0 10	7 39	7 57	7 70	7 20
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	0 001	< 0 001	0 002	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	1 14	1 20	1 08	1 34
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0005	0 0004	0 0005	0 0010
Radium 226	EPA 903 0	pCi/L	0 2	1 4	1 4	1 3	1 3
Radium Error Estimate ±				0 3	0 3	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	4 3	2 6	3 3
Radium Error Estimate ±				-	1 1	1 2	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha	EPA 900 0	pCi/L	1 0	2 1	1.6	< 1 0	1 3
G Alpha Error Estimate ±				1 2	1.2	-	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		41 0	41 8	36 4	38 8
Cation	meq		43 3	38 5	37 2	42 7
SM A/C Balance	%	-5 - +5	2 81	-4 13	1 06	4 72
Calc TDS	mg/L		2607	2565	2301	2514
TDS A/C Balance	dec %	0 80 - 1 20	1 05	1 08	1 20	1 09

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID.	EPA-4	EPA-4	EPA-4	EPA-4
LABORATORY ID.	C02010514-006	C02040488-007	C02070704-007	C02100686-006
SAMPLE DATE/TIME:	01/14/2002 12:10	04/09/2002 14:15	07/16/2002 15:20	10/15/2002 12:10
DATE RECEIVED.	01/18/2002 10.00	04/15/2002 10.00	07/22/2002 10:00	10/18/2002 10.00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Revised(see attachment)

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	624	545	533	613
Magnesium	EPA 200 7	mg/L	1 0	413	369	369	414
Sodium	EPA 200 7	mg/L	1 0	165	186	172	196
Potassium	EPA 200 7	mg/L	1 0	10 5	9 0	10 4	9 1
Bicarbonate	SM 2320-B	mg/L	0 10	178	167	163	179
Sulfate	EPA 200 7	mg/L	1.0	2980	2880	2870	3260
Chloride	EPA 200 7	mg/L	1 0	46 2	39 5	43.1	40 0
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 85	0 82	1 07	1.15
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	0 16	0 31	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4730	4790	4740	4240
pH	SM 4500-H-B	std units	0 10	6 90	7.27	7 53	7 06
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0.10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	3 59	3 53	3 37	3 40
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	< 0 0003	< 0 0003	< 0 0003	0 0005
Radium 226	EPA 903 0	pCi/L	0 2	1 5	1 3	1 4	1 7
Radium Error Estimate ±				0 2	0 2	0 2	0 3
Radium 228	EPA 904 0	pCi/L	1 0	15 9	2 0	< 1 0	< 1 0
Radium Error Estimate ±				1 3	1 0	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	< 1.0	1 3	< 1 0	< 1 0
G Alpha Error Estimate ±				-	1 0	-	-
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		66 3	63 9	63 7	72 0
Cation	meq		73.3	66 6	65 4	74 2
SM A/C Balance	%	-5 - +5	5 02	2 07	1 33	1.50
Calc TDS	mg/L		4333	4118	4084	4627
TDS A/C Balance	dec %	0 80 - 1 20	1 09	1 16	1 16	0 92

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	EPA-4	EPA-4	EPA-4	EPA-4
LABORATORY ID	01-31997-11	01-34625-10	C01100431-005	C02010514-006
SAMPLE DATE/TIME·	04/03/2001 11·45	07/17/2001 11:15	10/09/2001 10 50	01/14/2002 12.10
DATE RECEIVED	04/06/2001 10.30	07/20/2001 10.30	10/12/2001 10.00	01/18/2002 10 00
REPORT DATE:	April 24, 2001	August 20, 2001	November 07, 2001	February 25, 2002
QUARTER REPRESENTED	Second 2001	Third 2001	Fourth 2001	First 2002
UNC SUBMITTAL #:	TE-6-4-2001	TE-11-7-2001	TE-16-10-2001	TE-2-1-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	651	533	520	624
Magnesium	EPA 200 7	mg/L	1 0	427	372	360	413
Sodium	EPA 200 7	mg/L	1 0	170	173	165	165
Potassium	EPA 200 7	mg/L	1 0	8 1	9 1	8 7	10 5
Bicarbonate	SM 2320-B	mg/L	0 10	177	172	174	178
Sulfate	EPA 200 7	mg/L	1 0	3230	2690	2700	2980
Chloride	EPA 200 7	mg/L	1 0	42 1	48 3	46 3	46 2
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	1 01	1 01	0 86	0 85
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	0 16
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4620	4780	4770	4730
pH	SM 4500-H-B	std units	0 10	7 06	7 02	6 80	6 90
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	3 37	3 22	3 26	3 59
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	< 0 0003	< 0 0003	< 0 0003	< 0 0003
Radium 226	EPA 903 0	pCi/L	0 2	1.2	1 1	1 5	1 5
Radium Error Estimate ±				0 2	0 2	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	3 8	5 8	3 7	5 4
Radium Error Estimate ±				1 3	1 1	1 2	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±					-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±					-	-	-
Gross Alpha	EPA 900 0	pCi/L	1 0	1 8	2 2	< 1 0	< 1 0
G Alpha Error Estimate ±				1 1	1 3	-	-
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		71 4	60 2	60 4	66 3
Cation	meq		76 0	65 7	63 6	73 3
SM A/C Balance	%	-5 - +5	3 12	4 31	2 60	5 02
Calc TDS	mg/L		4622	3916	3892	4333
TDS A/C Balance	dec %	0 80 - 1 20	1 00	1 22	1 23	1 09

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	EPA-5	EPA-5	EPA-5	EPA-5
LABORATORY ID:	C02010514-005	C02040488-006	C02070704-006	C02100686-005
SAMPLE DATE/TIME:	01/14/2002 11:30	04/09/2002 13:35	07/16/2002 14:40	10/15/2002 11:30
DATE RECEIVED.	01/18/2002 10:00	04/15/2002 10.00	07/22/2002 10:00	10/18/2002 10·00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED·	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	531	457	452	513
Magnesium	EPA 200 7	mg/L	1 0	621	551	550	608
Sodium	EPA 200 7	mg/L	1.0	139	150	139	151
Potassium	EPA 200 7	mg/L	1 0	14 1	12 6	13 6	12 5
Bicarbonate	SM 2320-B	mg/L	0 10	230	199	179	168
Sulfate	EPA 200 7	mg/L	1 0	3290	3150	3170	3580
Chloride	EPA 200 7	mg/L	1 0	97 8	88 8	77 3	75 1
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	16.7	15 7	15 7	15 1
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	31 0	29 8	30 7	12 3
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5430	5450	5410	4610
pH	SM 4500-H-B	std units	0 10	6 60	6 80	7 16	6.77
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0.01	< 0 01	< 0 01
Cadmium	EPA 200.8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 11	0 10	0 10	0 09
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	1.28	1 23	1.25	1 17
Molybdenum	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 13	0 11	0 09	0.10
Selenium IV	SM 3114-C	mg/L	0 001	0 002	0 001	0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0061	0 0046	< 0 0003	0 0026
Radium 226	EPA 903 0	pCi/L	0 2	1.7	0 8	1.5	1 8
Radium Error Estimate ±				0 2	0 2	0 2	0.3
Radium 228	EPA 904 0	pCi/L	1 0	4 8	1 5	< 1 0	< 1 0
Radium Error Estimate ±				1 0	1.0	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	1.2	1 5	2 7	2 7
G. Alpha Error Estimate ±				1 0	1 0	1 0	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		77 3	73 5	73 3	80 3
Cation	meq		86 0	76 8	76 0	84 3
SM A/C Balance	%	-5 - +5	5 32	2 18	1 79	2 44
Calc TDS	mg/L		4968	4662	4649	5099
TDS A/C Balance	dec %	0 80 - 1 20	1 09	1 17	1 16	0 90

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	EPA-7	EPA-7	EPA-7	EPA-7
LABORATORY ID:	C02010514-004	C02040488-005	C02070704-005	C02100686-004
SAMPLE DATE/TIME:	01/14/2002 10:55	04/09/2002 13:00	07/16/2002 14:05	10/15/2002 10.50
DATE RECEIVED.	01/18/2002 10·00	04/15/2002 10:00	07/22/2002 10.00	10/18/2002 10:00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED·	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	541	465	465	531
Magnesium	EPA 200 7	mg/L	1 0	923	821	841	932
Sodium	EPA 200 7	mg/L	1 0	275	304	303	316
Potassium	EPA 200 7	mg/L	1 0	9 3	7 8	9 6	7.9
Bicarbonate	SM 2320-B	mg/L	0 10	526	537	542	544
Sulfate	EPA 200 7	mg/L	1.0	4050	3950	3950	4420
Chloride	EPA 200.7	mg/L	1 0	217	192	208	180
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 49	0 60	0 70	0 64
Nitrate + Nitrite as N	EPA 353.2	mg/L	0 10	121	124	131	141
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7670	7720	7720	6430
pH	SM 4500-H-B	std units	0 10	6 60	6 85	7 17	7 13
Trace Metals, dissolved							
Aluminum	EPA 200 7	mg/L	0 10	2 30	1 50	1 30	1.70
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 05	0 05	0 04	0 04
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	6 51	6 09	5 32	5 66
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 08	0 08	< 0 05	0 07
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0022	0 0020	< 0 0003	0 0024
Radium 226	EPA 903 0	pCi/L	0 2	1 1	0 5	1 0	0 9
Radium Error Estimate ±				0 2	0 2	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	4 4	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				1 0	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0.2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	1 3	1 7	2 7	1 3
G Alpha Error Estimate ±				1 0	1 0	1 0	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	1 7	< 1.0	< 1 0	< 1.0

Quality Assurance Data		Target Range				
Anion	meq		108	105	106	116
Cation	meq		117	105	107	119
SM A/C Balance	%	-5 - +5	3 92	0 05	0 33	1 01
Calc TDS	mg/L		6821	6564	6634	7290
TDS A/C Balance	dec %	0 80 - 1.20	1 12	1 18	1 16	0 88

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY AND OCTOBER 2002

ZONE 3

504-B

*517

EPA-14

420

*711

*613

*708

NBL-1

EPA-13

717

719

LEVELS ONLY

EPA-9

702

710

712

713

714

701

706

707

402

446

424

*POINT OF COMPLIANCE WELLS

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID:	504-B	504-B	504-B	504-B
LABORATORY ID:	C02010348-002	C02040485-005	C02070696-002	C02100685-001
SAMPLE DATE/TIME:	01/07/2002 10:25	04/08/2002 11:20	07/15/2002 11:10	10/14/2002 09:40
DATE RECEIVED:	01/11/2002 10:00	04/15/2002 10:00	07/22/2002 10:00	10/18/2002 10:00
REPORT DATE:	February 11, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-1-1-2002	TE-6-4-2002	TE-11-7-2002	TE-13-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	499	477	561	460
Magnesium	EPA 200 7	mg/L	1 0	628	616	713	605
Sodium	EPA 200 7	mg/L	1.0	128	142	143	144
Potassium	EPA 200 7	mg/L	1 0	13 0	12 6	12.3	11 5
Bicarbonate	SM 2320-B	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1 0	3940	3810	4430	3710
Chloride	EPA 200 7	mg/L	1 0	42 0	33 5	25 6	26 8
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 63	0 70	1 23	1 16
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5840	5980	6060	4980
pH	SM 4500-H-B	std units	0 10	3 50	3 36	3 42	3 80
Trace Metals, dissolved							
Aluminum	EPA 200.7	mg/L	0 10	0 20	0 20	< 0 10	0 20
Arsenic III	SM 3114-C	mg/L	0 001	0 023	0 018	0 020	0 019
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 26	0 31	0 26	0 27
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	6 37	7 84	6 37	6 96
Molybdenum	EPA 200 7	mg/L	0 10	7 30	9 90	7 10	6 80
Nickel	EPA 200 7	mg/L	0 05	0 41	0 43	0 28	0.36
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0242	0 0278	0 0296	0 0331
Radium 226	EPA 903 0	pCi/L	0 2	18 2	13 5	16 3	12 4
Radium Error Estimate ±				1.4	1 2	1.1	1 4
Radium 228	EPA 904 0	pCi/L	1 0	23.2	19 5	24.7	13 1
Radium Error Estimate ±				1 9	2 2	2 8	1 2
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0.2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 1	pCi/L	1 0	16 7	20 4	17 3	18 7
G Alpha Error Estimate ±				2 2	2 4	2 3	1 5
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0

Quality Assurance Data		Target Range				
Anion	meq		83 3	80 3	93 0	78 1
Cation	meq		83 6	82 2	94 4	80 4
SM A/C Balance	%	-5 - +5	0 18	1 13	0 75	1.50
Calc TDS	mg/L		5258	5100	5893	4966
TDS A/C Balance	dec. %	0 80 - 1 20	1 11	1 17	1 03	1 00

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID.	517	517	517	517
LABORATORY ID:	C02010348-007	C02040225-002	C02070696-007	C02100685-010
SAMPLE DATE/TIME:	01/09/2002 09 40	04/02/2002 08 45	07/15/2002 15:10	10/14/2002 08 40
DATE RECEIVED:	01/11/2002 10 00	04/08/2002 10:30	07/22/2002 10:00	10/18/2002 10.00
REPORT DATE:	February 11, 2002	April 27, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #.	TE-1-1-2002	TE-5-4-2002	TE-11-7-2002	TE-12-10-2002

10/15/02

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	478	517	544	512
Magnesium	EPA 200 7	mg/L	1 0	416	436	466	447
Sodium	EPA 200 7	mg/L	1 0	120	146	136	142
Potassium	EPA 200 7	mg/L	1 0	10 0	10 0	8 40	8 80
Bicarbonate	SM 2320-B	mg/L	0 10	1 20	1 00	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1.0	3000	3230	3390	3250
Chloride	EPA 200 7	mg/L	1 0	69 0	56 4	42 6	46 6
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	9 80	10 1	10 5	10.8
Nitrate + Nitrite as N	EPA 353.2	mg/L	0 10	2 60	2 89	2 49	1.09
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4620	4660	4710	4260
pH	SM 4500-H-B	std units	0 10	4 60	4 48	4 42	4 12
Trace Metals							
Aluminum	EPA 200 7	mg/L	0.10	10 1	11 0	10 4	8 90
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	0 008	0 007	0 007	0 006
Cobalt	EPA 200 7	mg/L	0 01	0 55	0 57	0 55	0 56
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	6 08	6 50	5 88	6 10
Molybdenum	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 49	0 50	0 48	0 50
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium	EPA 200 8	mg/L	0 0003	0 0568	0 0652	0 0647	0 0660
Radium 226	EPA 903 0	pCi/L	0 2	11 2	13 1	11 2	7 6
Radium Error Estimate ±				1 0	1 3	0 9	0 6
Radium 228	EPA 904 0	pCi/L	1 0	15 5	12 2	21 8	9 5
Radium Error Estimate ±				1 6	1 0	2 7	1 2
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	0 5
Thorium Error Estimate ±				-	-	-	0 3
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 1	pCi/L	1 0	15 1	29 6	12.5	17 6
G Alpha Error Estimate ±				2 1	2.8	2.1	1 4
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	2 8	6 8	5 9	5 3

Quality Assurance Data		Target Range				
Anion	meq		64 6	69 1	72 0	69 1
Cation	meq		66 2	71 1	74 4	71 4
SM A/C Balance	%	-5 - +5	1.19	1 43	1 64	1 61
Calc TDS	mg/L		4134	4440	4628	4441
TDS A/C Balance	dec %	0 80 - 1 20	1 12	1 05	1 02	0 96

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID	EPA-14	EPA-14	EPA-14	EPA-14
LABORATORY ID:	C02010348-006	C02040225-003	C02070696-008	C02100685-005
SAMPLE DATE/TIME:	01/09/2002 09:15	04/03/2002 09 45	07/16/2002 08·30	10/14/2002 13:10
DATE RECEIVED:	01/11/2002 10 00	04/08/2002 10 30	07/22/2002 10.00	10/18/2002 10:00
REPORT DATE:	February 11, 2002	April 27, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-1-1-2002	TE-5-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	532	566	606	560
Magnesium	EPA 200 7	mg/L	1.0	414	434	466	425
Sodium	EPA 200 7	mg/L	1 0	139	171	160	165
Potassium	EPA 200 7	mg/L	1 0	11	10 5	9 4	9 6
Bicarbonate	SM 2320-B	mg/L	0 10	83 0	79 9	95 8	130
Sulfate	EPA 200 7	mg/L	1 0	2970	3190	3390	3080
Chloride	EPA 200 7	mg/L	1 0	74 0	61 6	50.6	52 2
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 60	0.70	1.96	2 85
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	13 6	13 3	14 0	13 9
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4680	4800	4830	4160
pH	SM 4500-H-B	std units	0 10	6.70	7 46	7 04	7 30
Trace Metals							
Aluminum	EPA 200 7	mg/L	0 10	36 2	18 6	19 2	21 6
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 7	mg/L	0 01	0 02	0 01	0 01	0 02
Cadmium	EPA 200 8	mg/L	0 005	0 011	0 010	0.008	0 006
Cobalt	EPA 200 7	mg/L	0 01	0 23	0 25	0.20	0 17
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	4 84	5 40	4 54	4.78
Molybdenum	EPA 200.8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 7	mg/L	0 05	0 27	0 25	0 22	0 19
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 7	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium	EPA 200 8	mg/L	0 0003	0 0598	0 0334	0 0387	0 0558
Radium 226	EPA 903 0	pCi/L	0 2	5 0	4 6	4 3	4 8
Radium Error Estimate ±				0 4	0 4	0 3	0 5
Radium 228	EPA 904 0	pCi/L	1 0	8 4	7 3	11 7	5 0
Radium Error Estimate ±				1 4	1 0	1 2	1 0
Thorium 230	EPA 907.0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	5 6	8 1	7 1	7.2
G Alpha Error Estimate ±				1 4	1 5	2 1	1.0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Quality Assurance Data			Target Range				
Anion		meq		66 3	70 5	74 6	68 8
Cation		meq		67 7	72 5	76 7	71 3
SM A/C Balance		%	-5 - +5	1 08	1 44	1.39	1 81
Calc TDS		mg/L		4247	4538	4799	4427
TDS A/C Balance		dec %	0 80 - 1 20	1.10	1 06	1 01	0 94

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID.	420	420	420	420
LABORATORY ID:	C02010348-004	C02040485-007	C02070696-005	C02100685-003
SAMPLE DATE/TIME:	01/07/2002 11:40	04/08/2002 13:50	07/15/2002 14.00	10/14/2002 10:50
DATE RECEIVED:	01/11/2002 10:00	04/15/2002 10:00	07/22/2002 10:00	10/18/2002 10:00
REPORT DATE:	February 11, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED.	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-1-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	661	644	642	680
Magnesium	EPA 200 7	mg/L	1 0	140	140	161	151
Sodium	EPA 200 7	mg/L	1 0	113	130	118	123
Potassium	EPA 200.7	mg/L	1 0	8 00	6 90	6 10	6 00
Bicarbonate	SM 2320-B	mg/L	0 10	508	565	515	569
Sulfate	EPA 200 7	mg/L	1 0	1700	1750	2015	1870
Chloride	EPA 200 7	mg/L	1.0	62 0	56 8	39 1	52 4
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 07	0 12	0 19	0 26
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	13 3	13 3	14 6	11 4
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	3360	3410	3480	3080
pH	SM 4500-H-B	std units	0.10	7.20	7 20	7 51	7.65
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	0 13	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	0 003	0 003	0 001	0 002
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0.01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0.005	< 0.005
Cobalt	EPA 200.8	mg/L	0 01	0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200.8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	2 04	2.22	1 87	1.85
Molybdenum	EPA 200 7	mg/L	0 10	0 16	0 20	0 20	0 10
Nickel	EPA 200 8	mg/L	0 05	0 06	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0534	0 0671	0.0728	0 0779
Radium 226	EPA 903 0	pCi/L	0 2	2 9	3 5	3 1	2.4
Radium Error Estimate ±				0 3	0 3	0 3	0 4
Radium 228	EPA 904 0	pCi/L	1 0	2 8	3 3	3 0	< 1 0
Radium Error Estimate ±				1 2	1.0	1 1	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0.2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 1	pCi/L	1.0	2.1	4 5	2 7	2.4
G Alpha Error Estimate ±				1.0	1 0	2 1	1.0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		46 4	48 3	52 6	50 6
Cation	meq		50 0	49 8	50 9	52 2
SM A/C Balance	%	-5 - +5	3 64	1 59	-1 6	1 6
Calc TDS	mg/L		2999	3071	3305	3220
TDS A/C Balance	dec %	0 80 - 1.20	1.12	1 11	1 05	0 96

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID:	711	711	711	711
LABORATORY ID	C02010513-003	C02040485-002	C02070696-009	C02100685-006
SAMPLE DATE/TIME:	01/15/2002 08:40	04/08/2002 09 50	07/16/2002 09:30	10/14/2002 13:40
DATE RECEIVED:	01/18/2002 10:00	04/15/2002 10·00	07/22/2002 10:00	10/18/2002 10 00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED.	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	547	482	569	516
Magnesium	EPA 200 7	mg/L	1 0	551	500	580	543
Sodium	EPA 200 7	mg/L	1 0	95 2	97 2	89 6	104
Potassium	EPA 200 7	mg/L	1 0	12 1	11 2	10 3	11 0
Bicarbonate	SM 2320-B	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1 0	3460	3360	3990	3730
Chloride	EPA 200 7	mg/L	1 0	21 0	21 9	11.3	16 4
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 54	0 61	1 26	1.24
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0.10	1 00	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5380	5340	5400	4720
pH	SM 4500-H-B	std units	0 10	3 70	3 23	3 10	3 01
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	1 40	1 30	1 40	1 00
Arsenic III	SM 3114-C	mg/L	0 001	0 037	0 028	0 023	0 027
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	0 44	0 47	0 38	0 41
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	8 13	8 23	6.94	7 73
Molybdenum	EPA 200 8	mg/L	0 10	0 14	0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	0 42	0 43	0 35	0 39
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0510	0 0463	0 0462	0 0454
Radium 226	EPA 903 0	pCi/L	0 2	10 0	11 4	9 9	8 9
Radium Error Estimate ±				1 0	1 5	0 9	1 2
Radium 228	EPA 904 0	pCi/L	1 0	26 1	23 6	32 5	14 2
Radium Error Estimate ±				2 0	1 8	3 0	1.3
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/l	1 0	10 6	14 1	12 6	14 4
G Alpha Error Estimate ±				1 7	1 1	2 1	1 3
Trace Organics							
Chloroform	EPA 624	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		72 7	70 7	83 5	78 2
Cation	meq		78 2	70 8	81.4	76 4
SM A/C Balance	%	-5 - +5	3 66	0 06	-1 24	-1 17
Calc TDS	mg/L		4696	4486	5259	4930
TDS A/C Balance	dec %	0 80 - 1 20	1 15	1 19	1 03	0 96

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID:	613	613	613	613
LABORATORY ID	C02010513-001	C02040225-001	C02070398-001	C02100483-001
SAMPLE DATE/TIME:	01/14/2002 08:35	04/02/2002 13:35	07/09/2002 14:55	10/08/2002 15.00
DATE RECEIVED:	01/18/2002 10.00	04/08/2002 10:30	07/12/2002 10:00	10/14/2002 10.00
REPORT DATE:	February 25, 2002	April 27, 2002	August 14, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-5-4-2002	TE-10-7-2002	TI-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	470	461	437	398
Magnesium	EPA 200 7	mg/L	1 0	701	678	672	625
Sodium	EPA 200 7	mg/L	1 0	342	311	316	284
Potassium	EPA 200 7	mg/L	1 0	< 1 0	1 6	< 1 0	< 1 0
Bicarbonate	SM 2320-B	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1 0	9090	9810	8810	8490
Chloride	EPA 200 7	mg/L	1 0	172	189	167	165
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	394	389	359	357
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	16 0	15 4	15 5	14 2
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	13800	13800	13300	11800
pH	SM 4500-H-B	std units	0 10	3 00	3 02	3 07	3 04
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	670	718	725	592
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	0 22	0 21	0 07	0 13
Cadmium	EPA 200 8	mg/L	0 005	0 039	0.038	0 026	0 031
Cobalt	EPA 200 8	mg/L	0 01	1 81	1.95	0 62	1 81
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	55 3	63 9	69 4	56 5
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	1 62	1 79	1 15	1 63
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	3 00	3 10	1 10	2 30
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/l	0 0003	1 99	1 84	2 48	1 79
Radium 226	EPA 903 0	pCi/L	0 2	13 2	15 1	19 9	16 6
Radium Error Estimate ±	-			0 8	2 1	1 6	1 4
Radium 228	EPA 904 0	pCi/L	1 0	3 2	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				1 0	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	810	575	509	543
Thorium Error Estimate ±				15 0	17 0	13 2	11 1
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi L	1 0	20 2	38 5	40 3	52 1
G Alpha Error Estimate ±				2 2	3 2	3 6	4 5
Trace Organics							
Chloroform	EPA 624	µg/L	1 0	109	39 7	39 7	166

Quality Assurance Data		Target Range				
Anion	meq		195	211	189	183
Cation	meq		202	204	202	179
SM A/C Balance	%	-5 - +5	1 77	-1 60	3 13	-1 06
Calc TDS	mg/L		11410	12085	11004	10543
TDS A/C Balance	dec %	0 80 - 1 20	1 21	1.14	1 21	1 12

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID	708	708	708	708
LABORATORY ID·	C02010513-002	C02040485-001	C02070696-011	C02100685-009
SAMPLE DATE/TIME:	01/14/2002 14·50	04/08/2002 09.00	07/16/2002 10:30	10/14/2002 15·05
DATE RECEIVED.	01/18/2002 10.00	04/15/2002 10:00	07/22/2002 10:00	10/18/2002 10:00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #.	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	520	453	540	485
Magnesium	EPA 200 7	mg/L	1 0	582	528	610	571
Sodium	EPA 200 7	mg/L	1 0	119	108	99 5	116
Potassium	EPA 200 7	mg/L	1 0	12 6	11 8	10 2	12 1
Bicarbonate	SM 2320-B	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1 0	3650	3600	4200	3880
Chloride	EPA 200 7	mg/L	1 0	28 6	33 4	16 1	25 1
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	1 11	1 22	2 04	2 14
Nitrate + Nitrite as N	EPA 353 2	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5670	5670	5760	4840
pH	SM 4500-H-B	std units	0 10	3 80	3 29	3 14	3 23
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	1 00	1 00	0 80	0 90
Arsenic III	SM 3114-C	mg/L	0 001	0 002	0 001	0 001	0 002
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	0 32	0 34	0 32	0 29
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	7 78	8 16	8.33	7 57
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0.10
Nickel	EPA 200 8	mg/L	0 05	0 25	0 27	0 24	0.24
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0111	0 0104	0 0117	0 0118
Radium 226	EPA 903 0	pCi/L	0 2	8 5	9 1	6 5	8 8
Radium Error Estimate ±				0 5	1 4	0 7	1 2
Radium 228	EPA 904 0	pCi/L	1 0	14 5	13 0	15 2	5 7
Radium Error Estimate ±				1 7	1 6	2 5	1 1
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0.2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
Lead Error Estimate ±				-	-	-	-
Gross Alpha	EPA 900.1	pCi/L	1 0	7 4	8 8	8 3	9 8
G Alpha Error Estimate ±				1 4	1 0	2 1	1 1
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		76 9	75 9	88 0	81 5
Cation	meq		80 5	72 2	83 0	77 8
SM A/C Balance	%	-5 - +5	2 32	-2 54	-2 89	-2.38
Calc TDS	mg/L		4922	4744	5487	5100
TDS A/C Balance	dec %	0 80 - 1 20	1 15	1 20	1 05	0 95

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM. ZONE 3 MONITOR WELLS

WELL ID:	NBL-1	NBL-1	NBL-1	NBL-1
LABORATORY ID	C02010348-001	C02040678-001	C02070696-001	C02100685-011
SAMPLE DATE/TIME:	01/07/2002 09.40	04/17/2002 09.30	07/15/2002 10.10	10/15/2002 14.30
DATE/TIME RECEIVED:	01/11/2002 10 00	04/22/2002 10.00	07/22/2002 10 00	10/18/2002 10.00
REPORT DATE:	February 11, 2002	May 14, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #·	TE-1-1-2002	TE-7-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	564	542	516	631
Magnesium	EPA 200 7	mg/L	1.0	158	167	185	176
Sodium	EPA 200 7	mg/L	1 0	115	113	123	121
Potassium	EPA 200 7	mg/L	1 0	7 0	6 8	7 1	6 3
Bicarbonate	SM 2320-B	mg/L	0 10	342	336	339	330
Sulfate	EPA 200 7	mg/L	1 0	1840	1780	1810	2070
Chloride	EPA 200 7	mg/L	1 0	36 0	37 9	26 0	31 4
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 26	0 29	0 43	0 45
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1.0	3110	3220	3310	3120
pH	SM 4500-H-B	std units	0 10	7 00	7 66	7 68	7 48
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	0 613	0 768	0 728	0 776
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	0 05	0 05	0 05	0 06
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	1 59	1 68	1 78	2 01
Molybdenum	EPA 200 8	mg/L	0.10	3 20	3 20	2 80	2.20
Nickel	EPA 200 8	mg/L	0 05	0 11	0 09	0 09	0 10
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 245	0 287	0 261	0 251
Radium 226	EPA 903 0	pCi/L	0 2	6 0	5 8	4 5	6 4
Radium Error Estimate ±				0 4	0 5	0 3	0 6
Radium 228	EPA 904 0	pCi/L	1 0	4 5	5 3	4 5	3 1
Radium Error Estimate ±				1.3	1 0	1 1	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	0 5	< 0 2	< 0 2
Thorium Error Estimate ±				-	0 2	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	5 8	7 8	5 4	5 6
G Alpha Error Estimate ±				1 4	1 0	2 1	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		45 0	43 7	44 0	49 4
Cation	meq		46 7	46 2	46.9	51 8
SM A/C Balance	%	-5 - +5	1 85	2 84	3 2	2 3
Calc TDS	mg/L		2893	2817	2839	3204
TDS A/C Balance	dec %	0 80 - 1 20	1 07	1 14	1.17	0 97

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID	EPA-13	EPA-13	EPA-13	EPA-13
LABORATORY ID	C02010513-005	C02040485-004	C02070696-004	C02100685-008
SAMPLE DATE/TIME:	01/15/2002 09.05	04/08/2002 10.40	07/15/2002 13:20	10/14/2002 14:30
DATE RECEIVED:	01/18/2002 10 00	04/15/2002 10.00	07/22/2002 10 00	10/18/2002 10.00
REPORT DATE:	February 25, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-2-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	445	442	519	502
Magnesium	EPA 200 7	mg/L	1 0	726	728	840	832
Sodium	EPA 200 7	mg/L	1 0	129	132	126	142
Potassium	EPA 200 7	mg/L	1 0	12 7	11 5	10 9	12 3
Bicarbonate	SM 2320-B	mg/L	0 10	91 5	88 4	85 4	86 6
Sulfate	EPA 200 7	mg/L	1 0	3870	3980	4660	4650
Chloride	EPA 200 7	mg/L	1 0	43 7	43 9	30 3	42 3
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 49	0 54	0 86	0 80
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	6250	6300	6450	5770
pH	SM 4500-H-B	std units	0 10	6 50	6 47	6 59	6 70
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	0 383	0 322	0 313	0.290
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	0 06	0 07	0 06	0 06
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	6 42	7 14	5 72	6 56
Molybdenum	EPA 200 8	mg/L	0 10	0 30	0 40	0 30	0 30
Nickel	EPA 200 8	mg/L	0 05	0 16	0 17	0 12	0 15
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0163	0 0180	0 0179	0 0173
Radium 226	EPA 903 0	pCi/L	0 2	4 1	3 9	4 7	4.2
Radium Error Estimate ±				0 3	0 4	0 3	0 5
Radium 228	EPA 904 0	pCi/L	1 0	10 1	8 7	6 6	4 8
Radium Error Estimate ±				1 0	1 0	1 1	1 1
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	5 5	6 0	4 9	5.7
G Alpha Error Estimate ±				1 2	1 0	2 1	1.0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		83 4	85 6	99 3	99 5
Cation	meq		89 1	89 2	102	101
SM A/C Balance	%	-5 - +5	3 31	2 07	1 36	0 92
Calc TDS	mg/L		5280	5391	6237	6233
TDS A/C Balance	dec %	0 80 - 1 20	1 18	1 17	1 03	0 93

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID:	717	717	717	717
LABORATORY ID.	C02010348-005	C02040485-008	C02070696-006	C02100685-004
SAMPLE DATE/TIME:	01/09/2002 08:45	04/09/2002 09:40	07/15/2002 14:30	10/14/2002 11:25
DATE RECEIVED.	01/11/2002 10:00	04/15/2002 10:00	07/22/2002 10:00	10/18/2002 10:00
REPORT DATE:	February 11, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED:	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #:	TE-1-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	669	660	791	720
Magnesium	EPA 200 7	mg/L	1 0	128	124	147	144
Sodium	EPA 200 7	mg/L	1 0	107	129	125	125
Potassium	EPA 200 7	mg/L	1 0	8 00	6 60	5 90	6 30
Bicarbonate	SM 2320-B	mg/L	0 10	656	654	740	704
Sulfate	EPA 200 7	mg/L	1 0	1530	1700	1886	1780
Chloride	EPA 200 7	mg/L	1 0	75 0	64 4	48 4	68 3
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 07	0 10	0 22	0 21
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	10 2	12 2	16 2	15 6
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	3230	3320	3420	3130
pH	SM 4500-H-B	std units	0 10	7.10	7 39	7 52	7 61
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	1 40	1 61	1 60	1 77
Molybdenum	EPA 200 7	mg/L	0 10	0 20	0 20	0 20	0 20
Nickel	EPA 200 8	mg/L	0 05	0 06	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 0841	0 112	0 118	0 115
Radium 226	EPA 903 0	pCi/L	0 2	4 9	3 1	3 1	2 2
Radium Error Estimate ±				0 4	0 3	0 3	0 3
Radium 228	EPA 904 0	pCi/L	1 0	7 6	3 8	7 3	3 2
Radium Error Estimate ±				1 4	1 0	1 2	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	3 5	3 4	3.2	4 8
G Alpha Error Estimate ±				1 2	1 0	2 1	1 0
Trace Organics							
Chloroform	EPA 601	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Quality Assurance Data			**Target Range**				
Anion		meq		45 5	48 8	53.9	51.7
Cation		meq		49 1	49 2	57 5	53 7
SM A/C Balance		%	-5 - +5	3 79	0 39	3 2	1 9
Calc TDS		mg/L		2892	3067	3447	3267
TDS A/C Balance		dec %	0 80 - 1 20	1 12	1 08	0 99	0 96

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UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 3 MONITOR WELLS

WELL ID:	719	719	719	719
LABORATORY ID.	C02010348-003	C02040485-006	C02070696-003	C02100685-002
SAMPLE DATE/TIME:	01/07/2002 11:10	04/08/2002 13·20	07/15/2002 11:45	10/14/2002 10:20
DATE RECEIVED:	01/11/2002 10 00	04/15/2002 10:00	07/22/2002 10.00	10/18/2002 10:00
REPORT DATE:	February 11, 2002	May 7, 2002	August 13, 2002	November 8, 2002
QUARTER REPRESENTED.	First 2002	Second 2002	Third 2002	Fourth 2002
UNC SUBMITTAL #·	TE-1-1-2002	TE-6-4-2002	TE-11-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	496	470	563	514
Magnesium	EPA 200 7	mg/L	1 0	463 .	440	517	491
Sodium	EPA 200 7	mg/L	1 0	115	129	123	134
Potassium	EPA 200 7	mg/L	1 0	6 00	5.70	7 60	10 5
Bicarbonate	SM 2320-B	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Sulfate	EPA 200 7	mg/L	1 0	3760	3470	4020	3720
Chloride	EPA 200 7	mg/L	1 0	57 0	39 9	33 9	33 4
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	2 90	3 42	3 59	3 76
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5680	5520	5420	4630
pH	SM 4500-H-B	std units	0 10	2 80	2 99	3 00	3 06
Trace Metals, dissolved							
Aluminum	EPA 200 7	mg/L	0 10	47 4	51 0	35 4	25 0
Arsenic III	SM 3114-C	mg/L	0 001	0 010	0 005	0 005	0 005
Beryllium	EPA 200 7	mg/L	0 01	0 05	0 05	0 04	0 05
Cadmium	EPA 200 8	mg/L	0 005	0 009	0 005	< 0 005	< 0 005
Cobalt	EPA 200 7	mg/L	0 01	0 68	0 76	0 59	0 65
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 7	mg/L	0 01	8 21	8 64	6.70	7 89
Molybdenum	EPA 200 7	mg/L	0 10	0 20	0 20	< 0 10	< 0.10
Nickel	EPA 200 7	mg/L	0 05	0 98	1 08	0 73	0 90
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 270	0 258	0 191	0 086
Radium 226	EPA 903 0	pCi/L	0 2	15 5	12 2	6 8	5 4
Radium Error Estimate ±				1 2	1 1	0 7	0 5
Radium 228	EPA 904 0	pCi/L	1 0	1 9	< 1 0	4 6	2 0
Radium Error Estimate ±				1 2	-	1 1	1 0
Thorium 230	EPA 907 0	pCi/L	0 2	28 0	17 1	9 0	< 0 2
Thorium Error Estimate ±				2 8	2 8	1.5	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn & U	EPA 900 0	pCi/L	1 0	29 0	19 6	14 9	11 5
G Alpha Error Estimate ±				2.9	2 4	2 2	1 2
Trace Organics							
Chloroform	EPA 624	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		79 9	73 4	84 7	78 4
Cation	meq		74 5	72 3	81 4	76 2
SM A/C Balance	%	-5 - +5	-3 53	-0 74	-2 02	-1 44
Calc TDS	mg/L		4909	4568	5276	4916
TDS A/C Balance	dec %	0 80 - 1 20	1 16	1 21	1 03	0 94

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY AND OCTOBER 2002

SOUTH WEST ALLUVIUM

*509-D

624

627

*632

801

802

803

808

*GW-1

*GW-2

*GW-3

*EPA-23

EPA-25

*EPA-28

LEVELS ONLY

805

807

*POINT OF COMPLIANCE WELLS

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	509-D	509-D	509-D	509-D
LABORATORY ID:	C02050336-001	C02060276-001	C02070393-001	C02100477-001
SAMPLE DATE/TIME:	05/06/2002 09:00	06/03/2002 09:15	07/08/2002 09:30	10/07/2002 09:15
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	916	949	925	856
Magnesium	EPA 200.7	mg/L	0 01	361	331	381	333
Sodium	EPA 200.7	mg/L	0 05	279	244	306	254
Potassium	EPA 200 7	mg/L	0 10	14.5	11 1	13 4	11.9
Bicarbonate	SM 2320-B	mg/L	0 10	2120	2240	2160	2100
Sulfate	EPA 200 7	mg/L	1 0	1850	1500	1900	1750
Chloride	EPA 200 7	mg/L	1 0	344	318	308	300
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	2.76	0 32	4 08	1.17
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	27 3	24 5	25.0	26 4
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5390	5200	5470	4290
pH	SM 4500-H-B	std units	0 10	7 74	7 87	7.83	7 82
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	2 48	2 99	2 34	2.47
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	0 30	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0.001	< 0.001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200.8	mg/L	0.10	< 0 10	< 0 10	< 0.10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200.8	mg/L	0 0003	0 198	0.192	0 229	0 159
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	0 3	< 0 2
Radium Error Estimate ±				-	-	0 2	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	2 7	< 1 0	< 1 0
Radium Error Estimate ±				-	1.0	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1.0	< 1 0	< 1 0	< 1 0	< 1.0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1.0	< 1 0	< 1 0	< 1.0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		84 9	78.7	85.5	81 2
Cation	meq		88 7	86.1	92.1	82.1
SM A/C Balance	%	-5 - +5	2 18	4 51	3.72	0 55
Calc TDS	mg/L		4951	4585	5032	4676
TDS A/C Balance	dec %	0 80 - 1 20	1 09	1 13	1.09	0 92

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	624	624	624	624
LABORATORY ID:	C02050336-011	C02060276-010	C02070393-010	C02100477-012
SAMPLE DATE/TIME:	05/07/2002 08:45	06/04/2002 09:00	07/09/2002 09:20	10/08/2002 11:30
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10.00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	June 5, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	719	720	713	659
Magnesium	EPA 200 7	mg/L	0 01	448	450	463	425
Sodium	EPA 200 7	mg/L	0.05	226	201	223	208
Potassium	EPA 200 7	mg/L	0 10	7 4	6 4	7 3	6 2
Bicarbonate	SM 2320-B	mg/L	0 10	1480	1480	1500	1490
Sulfate	EPA 200 7	mg/L	1.0	2100	1830	2150	1810
Chloride	EPA 200 7	mg/L	1 0	186	181	200	173
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0.13	0 05	0 05	0 08
Nitrate + Nitrite as N	EPA 353.2	mg/L	0 10	104	96 3	92 4	97 1
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5220	5220	5300	5150
pH	SM 4500-H-B	std units	0 10	7 61	7 66	7 42	7 25
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0.001	< 0 001	< 0 001	< 0.001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0.05	< 0 05	< 0 05	< 0 05	< 0.05
Manganese	EPA 200 8	mg/L	0 01	0 03	0.03	0 03	0 03
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0355	0 0333	0 0360	0 0262
Radium 226	EPA 903 0	pCi/L	0 2	0 5	< 0 2	0.3	< 0 2
Radium Error Estimate ±				0 2	-	0 2	-
Radium 228	EPA 904.0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		80 7	74 4	81 6	73.9
Cation	meq		83 3	82 4	84 1	77.6
SM A/C Balance	%	-5 - +5	1 60	5 13	1.51	2 40
Calc TDS	mg/L		4887	4555	4916	4456
TDS A/C Balance	dec. %	0 80 - 1 20	1 07	1 15	1 08	1 16

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	627	627	627	627
LABORATORY ID:	C02050336-015	C02060276-015	C02070393-015	C02100477-006
SAMPLE DATE/TIME:	05/07/2002 13:00	06/04/2002 13:10	07/09/2002 14:10	10/07/2002 15:05
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	June 5, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	594	607	587	543
Magnesium	EPA 200 7	mg/L	0 01	294	300	306	280
Sodium	EPA 200 7	mg/L	0 05	512	479	495	455
Potassium	EPA 200 7	mg/L	0 10	5 9	4 6	5.5	4 7
Bicarbonate	SM 2320-B	mg/L	0 10	601	602	608	611
Sulfate	EPA 200.7	mg/L	1 0	2500	2550	2590	2160
Chloride	EPA 200.7	mg/L	1 0	59 7	53 8	76 0	50 1
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 08	0 12	< 0 05	0 06
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	137	122	133	139
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1.0	5180	5190	5350	4170
pH	SM 4500-H-B	std units	0 10	7.84	7 71	7 90	7 65
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0.10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0.001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	0 13	0 13	0 11	0.09
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0249	0 0246	0 0228	0 0198
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	0.7	0.3	< 0 2
Radium Error Estimate ±				-	0.2	0 2	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0.2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1.0	< 1.0

Quality Assurance Data		Target Range				
Anion	meq		73 4	73 2	75 6	66 4
Cation	meq		76 6	76 3	76 5	70 4
SM A/C Balance	%	-5 - +5	2 15	2 06	0 63	2 95
Calc TDS	mg/L		4873	4836	4953	4414
TDS A/C Balance	dec %	0 80 - 1 20	1 06	1 07	1 08	0 94

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID.	632	632	632	632
LABORATORY ID:	C02050336-006	C02060276-009	C02070393-009	C02100477-015
SAMPLE DATE/TIME:	05/06/2002 11:40	06/03/2002 14:50	07/08/2002 15:15	10/08/2002 14:20
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10.00	07/12/2002 10.00	10/14/2002 10.00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	649	645	645	578
Magnesium	EPA 200 7	mg/L	0 01	715	717	761	685
Sodium	EPA 200 7	mg/L	0 05	388	349	292	356
Potassium	EPA 200 7	mg/L	0 10	10 7	8 90	11 4	8 70
Bicarbonate	SM 2320-B	mg/L	0 10	1720	1710	1710	1700
Sulfate	EPA 200 7	mg/L	1 0	3270	3290	3490	3150
Chloride	EPA 200 7	mg/L	1 0	260	240	229	221
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 34	0 34	0 36	0 30
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	43 7	45.1	43.3	45 7
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7130	7150	7200	7100
pH	SM 4500-H-B	std units	0.10	7.16	7 30	7 75	7 29
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0.10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0.01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	1 12	1 00	0 96	1 07
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200.8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0636	0.0580	0 0708	0 0521
Radium 226	EPA 903 0	pCi/L	0 2	0 8	0 6	1.0	2.1
Radium Error Estimate ±				0 2	0 2	0 2	0 2
Radium 228	EPA 904 0	pCi/L	1 0	2 2	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				1 0	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	2.1	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				1 0	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	2 4	2.8	2 4	2 6
Quality Assurance Data			Target Range				
Anion		meq		107	107	110	103
Cation		meq		109	107	109	102
SM A/C Balance		%	-5 - +5	1 16	0 43	-0 71	-0 60
Calc TDS		mg/L		6348	6306	6477	6053
TDS A/C Balance		dec %	0 80 - 1.20	1 12	1 13	1 11	1 17

LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	801	801	801	801
LABORATORY ID:	C02050336-007	C02060276-006	C02070393-006	C02100477-009
SAMPLE DATE/TIME:	05/06/2002 13:40	06/03/2002 13:10	07/08/2002 13:35	10/08/2002 09:55
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10.00	10/14/2002 10:00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	564	561	552	515
Magnesium	EPA 200 7	mg/L	0 01	762	754	778	699
Sodium	EPA 200 7	mg/L	0 05	341	328	257	328
Potassium	EPA 200 7	mg/L	0 10	14 4	12 2	13 8	12.7
Bicarbonate	SM 2320-B	mg/L	0.10	1570	1570	1570	1560
Sulfate	EPA 200 7	mg/L	1 0	3520	3460	3570	3260
Chloride	EPA 200.7	mg/L	1 0	242	208	194	206
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	6 40	6 50	6 30	6 40
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	2 34	2 13	2 04	1 99
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7030	7070	7050	6960
pH	SM 4500-H-B	std units	0 10	7.38	7 43	7 69	7 58
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0.10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0.001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0.01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0.005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0.01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	6 84	6 36	5 85	5 66
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	0 06	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0472	0 0420	0 0488	0 0343
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	0 3	< 0 2
Radium Error Estimate ±				-	-	0 2	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0 2	< 0.2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1.0	< 1 0	< 1 0	< 1.0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	3 0	3 7	3 0	3 2
Quality Assurance Data			**Target Range**				
Anion		meq		106	104	106	99
Cation		meq		108	106	105	99
CM A/C Balance		%	-5 - +5	0 78	1 16	-0 47	-0 04
Calc TDS		mg/L		6254	6132	6173	5823
TDS A/C Balance		dec %	0 80 - 1 20	1.12	1 15	1 14	1 20

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	802	802	802	802
LABORATORY ID.	C02050336-005	C02060276-005	C02070393-005	C02100477-002
SAMPLE DATE/TIME:	05/06/2002 11:10	06/03/2002 11:35	07/08/2002 13:00	10/07/2002 10:30
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10.00	10/14/2002 10:00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	815	859	830	774
Magnesium	EPA 200 7	mg/L	0 01	643	705	720	710
Sodium	EPA 200.7	mg/L	0 05	302	299	265	317
Potassium	EPA 200 7	mg/L	0 10	7 8	6 6	7 7	6 2
Bicarbonate	SM 2320-B	mg/L	0.10	2090	2160	2190	2140
Sulfate	EPA 200 7	mg/L	1 0	2790	3090	3150	3060
Chloride	EPA 200 7	mg/L	1 0	215	196	227	187
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 05	0.08	0 20	0 08
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	107	103	99 1	95.2
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7050	7430	7470	5680
pH	SM 4500-H-B	std units	0 10	7 24	7 94	7.84	7 99
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0.10	< 0.10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0.01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0.05
Manganese	EPA 200 8	mg/L	0 01	0 70	0 53	0 55	0 65
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0.05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0.001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0.0003	0 227	0 199	0 248	0 205
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	0 5	< 0 2
Radium Error Estimate ±				-	-	0 3	-
Radium 228	EPA 904 0	pCi/L	1.0	< 1 0	< 1 0	< 1.0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0.2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1.0	1 9	3 0	2 6	3 5

Quality Assurance Data		Target Range				
Anion	meq		106	113	115	111
Cation	meq		108	115	113	112
SM A/C Balance	%	-5 - +5	0.76	0 98	-0 76	0 43
Calc TDS	mg/L		6293	6693	6735	6547
TDS A/C Balance	dec %	0 80 - 1 20	1 12	1 11	1.11	0 87

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	803	803	803	803
LABORATORY ID:	C02050336-003	C02060276-003	C02070393-003	C02100477-008
SAMPLE DATE/TIME:	05/06/2002 10:10	06/03/2002 10:35	07/08/2002 10:55	10/08/2002 09:20
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	734	749	711	678
Magnesium	EPA 200.7	mg/L	0 01	718	743	725	690
Sodium	EPA 200.7	mg/L	0 05	259	240	214	244
Potassium	EPA 200 7	mg/L	0 10	12 5	11 0	10 9	11 3
Bicarbonate	SM 2320-B	mg/L	0 10	1890	1910	1890	1880
Sulfate	EPA 200 7	mg/L	1 0	3140	3250	3150	3060
Chloride	EPA 200 7	mg/L	1 0	182	165	148	163
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 72	0 86	0 78	1.04
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	55 4	52.7	51 3	55 2
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	7010	7130	7110	5300
pH	SM 4500-H-B	std units	0 10	7 13	7 44	7.60	7 44
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200.8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200.8	mg/L	0 005	< 0.005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200.8	mg/L	0 01	< 0.01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	1 87	1.80	1 77	1 60
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	0 06	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0.001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0.174	0 153	0 201	0.132
Radium 226	EPA 903 0	pCi/L	0 2	< 0.2	< 0 2	0 4	< 0 2
Radium Error Estimate ±				-	-	0 3	-
Radium 228	EPA 904 0	pCi/L	1.0	< 1.0	< 1.0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
G. Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1.0	1 2	< 1.0	1 1

Quality Assurance Data		Target Range				
Anion	meq		105	107	104	103
Cation	meq		108	110	106	102
SM A/C Balance	%	-5 - +5	1 30	1 29	0 60	-0 31
Calc TDS	mg/L		6239	6349	6134	6034
TDS A/C Balance	dec %	0 80 - 1 20	1 12	1 12	1 16	0 88

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID.	808	808	808	808
LABORATORY ID:	C02040226-004	C02050336-004	C02060276-004	C02070393-004
SAMPLE DATE/TIME:	04/01/2002 11:00	05/06/2002 10:45	06/03/2002 11:05	07/08/2002 11:25
DATE/TIME RECEIVED:	04/08/2002 10:30	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10:00
REPORT DATE:	April 27, 2002	April 27, 2002	June 27, 2002	July 24, 2002
UNC SUBMITTAL #:	TE-5-4-2002	TE-5-4-2002	TE-9-6-2002	TE-10-7-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	810	773	781	782
Magnesium	EPA 200 7	mg/L	1 0	663	644	655	682
Sodium	EPA 200 7	mg/L	1 0	310	287	270	230
Potassium	EPA 200 7	mg/L	1 0	7 4	7 6	5 9	7.3
Bicarbonate	SM 2320-B	mg/L	0 10	1930	1950	1960	1960
Sulfate	EPA 200.7	mg/L	1 0	2930	2690	2750	2850
Chloride	EPA 200.7	mg/L	1 0	207	208	173	173
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 07	0.16	0.09	0 15
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.10	117	125	120	115
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	6820	6900	6810	6950
pH	SM 4500-H-B	std. units	0 10	7 84	7 15	7 36	7.63
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	0 70	0 71	0.65	0 64
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0.10
Radiometrics, dissolved							
Uranium	EPA 200.8	mg/L	0.0003	0 150	0 148	0 142	0.169
Radium 226	EPA 903.0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	0 3
Radium Error Estimate ±				-	-	-	0 2
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0.2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 624	µg/L	1 0	4.1	4 0	4 8	4 2

Quality Assurance Data		Target Range				
Anion	meq		107	103	103	105
Cation	meq		109	105	106	106
SM A/C Balance	%	-5 - +5	1 20	1 08	1.29	0 75
Calc TDS	mg/L		6412	6139	6147	6215
TDS A/C Balance	dec %	0 80 - 1 20	1 06	1 12	1.11	1 12

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: ZONE 1 MONITOR WELLS

WELL ID:	808	808	808	808
LABORATORY ID.	C02050336-004	C02060276-004	C02070393-004	C02100477-003
SAMPLE DATE/TIME:	05/06/2002 10:45	06/03/2002 11:05	07/08/2002 11:25	10/07/2002 11:00
DATE/TIME RECEIVED:	05/10/2002 10.00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	April 27, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-5-4-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	1 0	773	781	782	705
Magnesium	EPA 200 7	mg/L	1.0	644	655	682	620
Sodium	EPA 200 7	mg/L	1.0	287	270	230	290
Potassium	EPA 200 7	mg/L	1 0	7 6	5 9	7.3	5 2
Bicarbonate	SM 2320-B	mg/L	0 10	1950	1960	1960	1970
Sulfate	EPA 200 7	mg/L	1 0	2690	2750	2850	2630
Chloride	EPA 200 7	mg/L	1 0	208	173	173	168
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 16	0 09	0 15	< 0 05
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	125	120	115	113
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	6900	6810	6950	5260
pH	SM 4500-H-B	std units	0 10	7.15	7.36	7 63	7.19
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0.10	< 0 10
Arsenic III	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0.01
Lead	EPA 200.8	mg/L	0 05	< 0 05	< 0.05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	0 71	0 65	0 64	0 65
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0.05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-C	mg/L	0 001	< 0 001	< 0 001	< 0.001	< 0.001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics, dissolved							
Uranium	EPA 200 8	mg/L	0 0003	0 148	0 142	0 169	0 115
Radium 226	EPA 903 0	pCi/L	0.2	< 0 2	< 0 2	0.3	< 0 2
Radium Error Estimate ±				-	-	0 2	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 624	µg/L	1 0	4 0	4 8	4 2	5 0

Quality Assurance Data		Target Range				
Anion	meq		103	103	105	100
Cation	meq		105	106	106	100
SM A/C Balance	%	-5 - +5	1 08	1 29	0 75	-0 10
Calc TDS	mg/L		6139	6147	6215	5905
TDS A/C Balance	dec %	0 80 - 1.20	1.12	1.11	1.12	0 89

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID.	GW-1	GW-1	GW-1	GW-1
LABORATORY ID	C02050336-009	C02060276-008	C02070393-008	C02100477-011
SAMPLE DATE/TIME:	05/06/2002 14:50	06/03/2002 14·15	07/08/2002 14·40	10/08/2002 11:05
RECEIVED DATE/TIME.	05/10/2002 10.00	06/10/2002 10 00	07/12/2002 10 00	10/14/2002 10 00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-10-12-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	763	755	753	708
Magnesium	EPA 200 7	mg/L	0 01	418	423	454	460
Sodium	EPA 200 7	mg/L	0 05	245	230	190	241
Potassium	EPA 200 7	mg/L	0 10	5 8	4 3	6 6	4 0
Bicarbonate	SM 2320-B	mg/L	0 10	1110	1150	1200	1300
Sulfate	EPA 200.7	mg/L	1 0	2450	2400	2500	2320
Chloride	EPA 200 7	mg/L	1 0	160	150	140	170
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 56	0 57	0 54	0 42
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	91 0	96 0	99 9	113
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5490	5530	5630	5850
pH	SM 4500-H-B	std units	0 10	7 56	7 61	7.80	7 72
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0.10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	0 05	0 05	0 04	0 04
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 114	0 108	0 128	0 0930
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	0 6
Radium Error Estimate ±				-	-	-	0 3
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1.0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1.0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0

Quality Assurance Data		Target Range				
Anion	meq		80 2	79 9	82 8	82 5
Cation	meq		83 8	83 2	84 0	84 3
SM A/C Balance	%	-5 - +5	2 18	1 97	0 67	1 10
Calc TDS	mg/L		5001	4963	5087	5054
TDS A/C Balance	dec %	0 80 - 1 20	1 10	1.11	1 11	1.16

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM· SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID·	GW-2	GW-2	GW-2	GW-2
LABORATORY ID:	C02050336-008	C02060276-007	C02070393-007	C02100477-010
SAMPLE DATE/TIME:	05/06/2002 14·15	06/03/2002 13:45	07/08/2002 14:10	10/08/2002 10.30
RECEIVED DATE/TIME:	05/10/2002 10 00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10.00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #.	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	643	645	648	619
Magnesium	EPA 200 7	mg/L	0 01	509	508	530	494
Sodium	EPA 200 7	mg/L	0 05	239	216	178	228
Potassium	EPA 200 7	mg/L	0 10	11 6	9 80	11.3	9 70
Bicarbonate	SM 2320-B	mg/L	0 10	1530	1560	1600	1690
Sulfate	EPA 200 7	mg/L	1 0	2410	2360	2430	2260
Chloride	EPA 200 7	mg/L	1 0	199	178	208	185
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 06	0 05	0 16	0 10
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	20 4	22 0	22 5	30 1
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5340	5390	5470	5550
pH	SM 4500-H-B	std units	0 10	7 36	7 38	7 67	7.52
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0.05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	0 52	0 52	0 48	0 51
Molybdenum	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0.10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0738	0 0646	0 0821	0 0640
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0.2	< 0 2	2 0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1.0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		82 4	81 3	84 3	82 1
Cation	meq		85 3	84 3	84 6	82 3
SM A/C Balance	%	-5 - +5	1 75	1 77	0 18	0 10
Calc TDS	mg/L		4868	4795	4906	4775
TDS A/C Balance	dec. %	0 80 - 1 20	1 10	1.12	1 12	1.16

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM· SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID.	GW-3	GW-3	GW-3	GW-3
LABORATORY ID:	C02050336-013	C02060276-013	C02070393-013	C02100477-005
SAMPLE DATE/TIME:	05/07/2002 10 40	06/04/2002 10·45	07/09/2002 11:00	10/07/2002 14:10
RECEIVED DATE/TIME:	05/10/2002 10 00	06/10/2002 10 00	07/12/2002 10.00	10/14/2002 10:00
REPORT DATE:	June 5, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #.	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002
REVISED REPORT DATE:	-	-	-	December 30, 2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	953	958	953	884
Magnesium	EPA 200 7	mg/L	0 01	288	293	302	276
Sodium	EPA 200 7	mg/L	0 05	250	236	157	223
Potassium	EPA 200.7	mg/L	0 10	10 2	8 0	8 8	8 0
Bicarbonate	SM 2320-B	mg/L	0 10	1510	1520	1560	1620
Sulfate	EPA 200 7	mg/L	1 0	2120	2110	2170	2030
Chloride	EPA 200 7	mg/L	1 0	159	148	127	150
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 08	0 10	0 24	0 22
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	82 4	83 4	93 2	83 8
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	5320	5330	5430	4510
pH	SM 4500-H-B	std units	0 10	7 44	7 67	7 38	7 35
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	0 01	0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	2 18	1 97	1 79	1.95
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	0 08	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0.10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0800	0 0789	0 0934	0 0713
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	0 4	< 0 2	< 0 2
Radium Error Estimate ±				-	0 2	-	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		79 3	79 0	81 0	79 1
Cation	meq		82 9	82 9	80 0	77 2
SM A/C Balance	%	-5 - +5	2 23	2 41	-0 64	-1.18
Calc TDS	mg/L		4903	4885	4913	4754
TDS A/C Balance	dec %	0 80 - 1 20	1 09	1 09	1 11	0 95

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	EPA-23	EPA-23	EPA-23	EPA-23
LABORATORY ID:	C02050336-002	C02060276-002	C02070393-002	C02100477-007
SAMPLE DATE/TIME:	05/06/2002 09:40	06/03/2002 10:00	07//08/2002 10:20	10/08/2002 08:45
RECEIVED DATE/TIME:	05/10/2002 10.00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10:00
REPORT DATE:	June 4, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	661	664	656	628
Magnesium	EPA 200 7	mg/L	0 01	380	382	395	372
Sodium	EPA 200.7	mg/L	0 05	127	117	119	118
Potassium	EPA 200.7	mg/L	0 10	11 0	9 4	10 2	9 50
Bicarbonate	SM 2320-B	mg/L	0 10	1080	1060	1070	1080
Sulfate	EPA 200 7	mg/L	1 0	2240	2270	2320	2010
Chloride	EPA 200 7	mg/L	1 0	77 7	73.5	78 2	75 6
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	1.11	1.12	1.34	1 47
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	1.09	1 05	0.91	0 98
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4500	4480	4520	4280
pH	SM 4500-H-B	std units	0 10	7 17	7 37	7 55	7.59
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0.10	< 0.10	< 0 10	< 0.10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0.001	< 0.001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	5 41	5 43	4 62	4 67
Molybdenum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	0 10	< 0.10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0.05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0.10	< 0 10	< 0.10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0252	0 0262	0 0291	0 0197
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	0 6	0 8
Radium Error Estimate ±				-	-	0 2	0.4
Radium 228	EPA 904 0	pCi/L	1 0	< 1.0	< 1 0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0.2	< 0.2	< 0 2	< 0 2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1.0	< 1 0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		66 6	66 8	68 1	61 8
Cation	meq		70 9	70 7	71.5	68 1
SM A/C Balance	%	-5 - +5	3 10	2 85	2.40	4 89
Calc TDS	mg/L		4048	4057	4124	3764
TDS A/C Balance	dec %	0 80 - 1 20	1 11	1.10	1 10	1 14

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	EPA-25	EPA-25	EPA-25	EPA-25
LABORATORY ID:	C02050336-014	C02060276-014	C02070393-014	C02100477-004
SAMPLE DATE/TIME:	05/07/2002 11:30	06/04/2002 11:30	07/09/2002 11:50	10/07/2002 12:10
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10.00	10/14/2002 10:00
REPORT DATE:	June 5, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200 7	mg/L	0 05	733	745	719	647
Magnesium	EPA 200 7	mg/L	0 01	222	230	230	212
Sodium	EPA 200 7	mg/L	0 05	158	149	165	160
Potassium	EPA 200 7	mg/L	0.10	9 1	7 6	6 6	6 9
Bicarbonate	SM 2320-B	mg/L	0 10	828	831	850	802
Sulfate	EPA 200.7	mg/L	1 0	1720	1780	1760	1560
Chloride	EPA 200.7	mg/L	1 0	88 3	79 9	106	70 0
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 07	0 07	0 20	0 16
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	91 5	85 6	92 5	82 1
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1 0	4030	4050	4130	3510
pH	SM 4500-H-B	std units	0 10	7 68	7 70	7 84	7.67
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0.10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0.01
Cadmium	EPA 200 8	mg/L	0 005	< 0 005	< 0 005	< 0 005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Lead	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Manganese	EPA 200 8	mg/L	0 01	1.77	1.49	1 45	1 62
Molybdenum	EPA 200 8	mg/L	0.10	< 0 10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0.001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0994	0 0864	0 0870	0 0778
Radium 226	EPA 903 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904 0	pCi/L	1 0	< 1.0	< 1 0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0 2
Thorium Error Estimate ±				< -	-	-	-
Lead 210	NERHL-65-4	pCi/L	1.0	< 1 0	< 1.0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900 1	pCi/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				- -	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1 0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		58 4	59 1	60 2	53 5
Cation	meq		62.4	63 2	62 6	57 3
SM A/C Balance	%	-5 - +5	3.25	3 36	1 92	3 40
Calc TDS	mg/L		3752	3788	3823	3422
TDS A/C Balance	dec %	0 80 - 1 20	1 07	1 07	1 08	1.03

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LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	EPA-28	EPA-28	EPA-28	EPA-28
LABORATORY ID:	C02050336-012	C02060276-012	C02070393-012	C02100477-014
SAMPLE DATE/TIME:	05/07/2002 09:50	06/04/2002 09:55	07/09/2002 10:15	10/08/2002 13:40
RECEIVED DATE/TIME:	05/10/2002 10:00	06/10/2002 10:00	07/12/2002 10:00	10/14/2002 10.00
REPORT DATE:	June 5, 2002	June 27, 2002	July 24, 2002	November 8, 2002
UNC SUBMITTAL #:	TE-8-5-2002	TE-9-6-2002	TE-10-7-2002	TE-12-10-2002

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	0 05	546	531	549	504
Magnesium	EPA 200 7	mg/L	0 01	507	485	524	480
Sodium	EPA 200.7	mg/L	0 05	210	192	202	192
Potassium	EPA 200.7	mg/L	0 10	13.1	11 4	13 1	11 2
Bicarbonate	SM 2320-B	mg/L	0 10	652	656	683	675
Sulfate	EPA 200 7	mg/L	1.0	2780	2660	2850	2680
Chloride	EPA 200.7	mg/L	1.0	119	116	120	113
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	0 05	0 07	< 0 05	0 05
Nitrate + Nitrite as N	EPA 353 2	mg/L	0 10	43.9	44 9	43 4	45 3
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1.0	5200	5150	5250	5190
pH	SM 4500-H-B	std units	0 10	7.58	7 83	7 58	7 60
Trace Metals, dissolved							
Aluminum	EPA 200 8	mg/L	0 10	< 0.10	< 0.10	< 0.10	< 0 10
Arsenic III	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0.001
Beryllium	EPA 200 8	mg/L	0 01	< 0 01	< 0 01	< 0 01	< 0 01
Cadmium	EPA 200.8	mg/L	0 005	< 0 005	< 0 005	< 0.005	< 0 005
Cobalt	EPA 200 8	mg/L	0 01	< 0 01	< 0.01	< 0.01	< 0 01
Lead	EPA 200.8	mg/L	0 05	< 0.05	< 0.05	< 0 05	< 0 05
Manganese	EPA 200.8	mg/L	0 01	0 47	0 50	0.41	0 44
Molybdenum	EPA 200 8	mg/L	0 10	< 0.10	< 0 10	< 0 10	< 0 10
Nickel	EPA 200 8	mg/L	0 05	< 0 05	< 0 05	< 0 05	< 0 05
Selenium IV	SM 3114-B	mg/L	0 001	< 0 001	< 0 001	< 0 001	< 0 001
Vanadium	EPA 200 8	mg/L	0 10	< 0 10	< 0 10	< 0 10	< 0 10
Radiometrics							
Uranium, dissolved	EPA 200 8	mg/L	0 0003	0 0388	0 0378	0 0464	0 0329
Radium 226	EPA 903 0	pCi/L	0 2	0 9	< 0 2	0 8	< 0 2
Radium Error Estimate ±				0.2	-	0 2	-
Radium 228	EPA 904 0	pCi/L	1.0	< 1.0	2 5	< 1 0	< 1 0
Radium Error Estimate ±				-	1 0	-	-
Thorium 230	EPA 907 0	pCi/L	0 2	< 0 2	< 0 2	< 0 2	< 0.2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900.1	pCi/L	1 0	< 1.0	< 1 0	< 1 0	< 1 0
G Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1 0	< 1 0	< 1.0	< 1 0	< 1 0

Quality Assurance Data		Target Range				
Anion	meq		75 1	72 6	77 1	73 3
Cation	meq		79 0	75 6	80 3	73 9
SM A/C Balance	%	-5 - +5	2 56	2 02	2 04	0 37
Calc TDS	mg/L		4696	4523	4792	4519
TDS A/C Balance	dec %	0 80 - 1 20	1 11	1 14	1 10	1 15