CHEMTECH-FORD ANALYTICAL LABORATORIE

7-29-98

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

(FROM MINE SPREADSHEET)
FIELD DATA:
Temp 12.4 °C
pH 8.61 SU
SC 1900 umhos/cm
DO 8 mg/L
Flow 65 GPM

Group #: 23282
Lab #: 98-U004452
Project: BASELINE
Sample Desc: ICE-1

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 9:40
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	528	1	6/11/98 9:00	SM 2320B	TSM
Carbonate as CO3, mg/L	14	1	6/11/98 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	456	1	6/11/98 9:00	SM 2320B	TSM
Chloride (D), mg/L	46	1	6/12/98 7:45	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	591	0.2	6/16/98 8:39	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	6/ 5/98 12:00	EPA 160.5	LPS
Sulfate, mg/L	585	167	6/ 9/98 10:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,310	10	6/10/98 11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	11	1.2	6/ 5/98 12:00	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	84.4	0.2	6/12/98 13:10	EPA 200.7	EG
Calcium (D), as Ca, mg/L	81.6	0.2	6/10/98 11:31	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.17	0.02	6/12/98 13:10	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.02	0.02	6/10/98 11:31	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	94.9	0.2	6/12/98 13:10	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	94.1	0.2	6/10/98 11:31	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	6/12/98 13:10	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	6/10/98 11:31	EPA 200.7	EG
Potassium (D), as K, mg/L	4.6	0.2	6/10/98 11:31	EPA 200.7	EG
Sodium (D), as Na, mg/L	210	0.2	6/10/98 11:31	EPA 200.7	EG

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

7-29-98

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 23282
Lab #: 98-U004452
Project: BASELINE
Sample Desc: ICE-1

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 9:40
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Oil & Grease, mg/L	< 5	5	6/ 9/98 10:00	SM18 5520-B	KRF
Cation Sum, meq/L	21.70				
Anion Sum, meq/L	22.61				
% Cation/Anion Difference,	3.53				
Receiving Temperature, C	9.9		6/ 5/98 10:25		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

NB 6-22-98

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001945
Project: BASELIN MONITORING
Sample Desc: ICE-1

~~(3-18-98 on field data sheet)~~

Date Sampled: 3/18/98 Time Sampled: 9:15
Date Submitted: 3/19/98 Time Received: 9:15

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	496	1	3/19/98 13:00	SM 2320B	TSM
Carbonate as CO3, mg/L	< 1	1	3/19/98 13:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	407	1	3/19/98 13:00	SM 2320B	TSM
Chloride (D), mg/L	60	1	3/19/98 11:30	EPA 325.3	TSM
Settleable Solids, mL/L/hr	< 0.1	0.1	3/19/98 11:00	EPA 160.5	LPS
Sulfate, mg/L	729	167	4/10/98 10:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,570	10	3/26/98 14:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	4	1	3/19/98 11:20	EPA 160.2	LPS
Calcium (D), as Ca, mg/L	88.6	0.3	4/ 7/98 13:06	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	3/25/98 11:08	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	91.1	0.2	4/ 7/98 13:06	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/25/98 11:08	EPA 200.7	EG
Potassium (D), as K, mg/L	6.1	0.2	4/ 7/98 13:06	EPA 200.7	EG
Sodium (D), as Na, mg/L	183	2	4/ 7/98 13:06	EPA 200.7	EG
Cation, meq/L	20.03				
Anion, meq/L	25.01				
% Difference,	11.00				
Receiving Temperature, C	2.3		3/19/98 9:15		RCG

Approved By: R Dun

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001945
Project: BASELIN MONITORING
Sample Desc: ICE-1

Date Sampled: 3/18/98
Date Submitted: 3/19/98

Time Sampled: 9:15
Time Received: 9:15

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001837
Project: BASLINE MONITORING
Sample Desc: ICE-1

Date Sampled: 3/16/98
Date Submitted: 3/17/98

Time Sampled: 10:50
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Hardness, EDTA Titration, mg/L	696	12	3/19/98 12:00	EPA 130.2	TSM
Hardness Index: Very Hard Water					
Iron (T), as Fe, mg/L	1.41	0.02	3/30/98 14:58	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.04	0.01	3/30/98 14:58	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/24/98 10:00	SM18 5520-B	KRF
Receiving Temperature, C	4.1		3/17/98 9:50		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

MB 3-2-98

DEC 1 1 1997

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012987
Project: BASE LINE
Sample Desc: ICE-1

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 12:20
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	448	1	12/ 2/97 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	7	1	12/ 2/97 12:00	SM 2320B	TM
Alkalinity, Total (CaCO3), mg/L	380	1	12/ 2/97 12:00	SM 2320B	TM
Chloride (D), mg/L	30	1	12/ 1/97 12:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	471	12	12/ 1/97 14:00	EPA 130.2	TM
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	11/21/97 11:45	EPA 160.5	LS
Sulfate, mg/L	353	100	12/ 5/97 10:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,190	10	11/28/97 12:45	EPA 160.1	LS
Total Suspended Solids, mg/L	6	1	11/21/97 11:45	EPA 160.2	LS
Calcium (T), as Ca, mg/L	68.8	0.1	11/25/97 13:04	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.13	0.02	11/25/97 13:04	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.07	0.02	11/25/97 13:04	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	74.6	0.1	11/25/97 13:04	EPA 200.7	LH
Manganese (T), as Mn, mg/L	< 0.01	0.01	11/25/97 13:04	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	11/25/97 13:04	EPA 200.7	LH
Potassium (D), as K, mg/L	3.7	0.1	11/25/97 13:04	EPA 200.7	LH
Sodium (D), as Na, mg/L	162	0.1	11/25/97 13:04	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	11/25/97 14:30	SM18 5520-B	KRF
Cation,	16.72		12/ 9/97		RH

Approved By: R2

{generic.rpt}

CHEMTECH-FORD

3-2-98

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012987
Project: BASE LINE
Sample Desc: ICE-1

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 12:20
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Anion,	15.76		12/ 9/97		RH
% Difference,	-2.94				
Receiving Temperature, C	3.0		11/21/97 9:55		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

CHEMTECH-FORD ANALYTICAL LABORATORIES

CM 3/13

RECEIVED JUN 17 1996

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 8483
Lab #: 96-U006835
Project: SCA-DOGM BASELINE
Sample Desc: ICE-1 Icelander Creek

Store #: 173199

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 10:45
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	541	1	5/31/96 5:00	SM 2320B	TM
Carbonate as CO3, mg/L	21	1	5/31/96 5:00	SM 2320B	TM
Alkalinity, Total, mg/L	478	1	5/31/96 5:00	SM 2320B	TM
Chloride, mg/L	50	1	5/25/96 9:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	516	12	5/29/96 10:00	EPA 130.2	TM
Settleable Solids, mL/L/hr	0.5	0.1	5/23/96 19:30	EPA 160.5	LS
Sulfate, mg/L	498	100	5/30/96 10:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,360	10	5/31/96 19:05	EPA 160.1	RAL
Total Suspended Solids, mg/L	27	2.5	5/23/96 19:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	56.2	0.1	6/ 4/96 9:36	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.37	0.01	6/ 4/96 9:37	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.01	0.01	6/ 4/96 9:36	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	95.3	0.1	6/ 4/96 9:36	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	6/ 4/96 9:37	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	6/ 4/96 9:36	EPA 200.7	LH
Potassium (D), as K, mg/L	4.8	0.1	6/ 4/96 9:36	EPA 200.7	LH
Sodium (D), as Na, mg/L	231	0.1	6/ 4/96 9:36	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	5/31/96 11:05	SM18 5520-B	RAL
Cation, meq/L	20.8				
Anion, meq/L	21.4				
% Difference,	1.25				

Approved By: _____

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

JUN 17 1996

Group #: 8483
Lab #: 96-U006835
Project: SCA-DOGM BASELINE
Sample Desc: ICE-1

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 10:45
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	7	0	5/23/96 9:00		RCG

NOTE: Sample submitted on ice.

Approved By: _____

Carbon County, Utah
UPDES Permit Number UT0024759

OUTFALL NUMBER: ICE - 1

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Field Parameters					Sample Taken	Observations (color,sheen,ordor,etc.)
						Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/L		
10-20-15	1159	R. MILLER	CLEAR	YES	50		10.2°	8.6	2356	6.8	YES	NO NEW DO METER CHECK OK

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: ICE-1

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1154	RBG/REG	Clear	yes	CC	6.0	3.0	8.08	2392.5	15.4	yes	
1/24/95	1327	RBG/GM	slight snow	yes	CC	30.0	3.0	8.32	2738.2*	11.5	no	*sc did not reel line; data possible error
2/23/95	1258	RBG/GM	sunny	yes	CC	33.0	6.2	8.36	1972.2	9.0	no	

Flow Measurement Methods: W= Weir, VE= Visual Estimate, CC= Calibrated Container, DF= Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: ICE-1 DOGM

Runoff Basin / Spring / Other: STREAM

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	* gpm Flow ~~(cfs)~~	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp ~~(°C)~~	pH	SC (umhos)	DO ~~Meter No.~~	Collection Point	Sample Taken (yes/no)
6/30/93	1335	GM CW	Sunny/Hot	yes		185	~~VE~~ CC		29	8.08	2200	7.4	Marked	yes
7/27	1517	GM	Sunny Hot	yes		200	~~VE~~ CC		23	8.17	2300	6.2	"	NO
8/26/93	1103	GM	—	yes		120	CC		16	7.18	2200	7.2	"	NO
9/2/93	1700	GM CW	Sld	yes		150	CC	-	20	8.23	2150	5.4	"	~~NO~~ yes
10/27	0830	MH	Warm	yes		150	VE		3.3	8.50	1200	6.0	"	NO
11/16	1310	MH	Cold	yes		150	VE		5.0	8.48	1800	5.6	"	~~NO~~
12/9	1555	GM	Cold	yes	clear	300	VE		4.8	8.49	2471	10.3	"	NO
1/13/94	1438	GM	Cold Clear	yes	Clear ICE-2 duplicate	200	VE		5.1	8.29	2220	6.4	"	yes
2/28	1336	GM	Cool, P.C.	yes	light brown/silty	150	VE		8.9	8.16	1450	7.3	"	NO
3/3/94	12:39	CW/TMM	WARM, SUNNY	yes	"	90	DF		12.9	7.90	1800	6.0	"	NO
4/19/94	1315	CW/GM	" "	yes	"	100	DF		17.2	8.23	2860	6.4	"	~~yes~~
5/31/94	1055	RG	cool, rain	yes	clear	300	CC		13.1	8.29	2257	9.9	"	NO

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

CHEMTECH-FORD

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

Date: 3/26/96

Group #: 7157
Lab #: 96-U002763
Project: DOGM
Sample Desc: Ice-1

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 11:05
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	514	1	3/14/96 11:00	SM 2320B	TM
Carbonate as CO3, mg/L	15	1	3/14/96 11:00	SM 2320B	TM
Alkalinity, Total, mg/L	448	1	3/14/96 11:00	SM 2320B	TM
Chloride, mg/L	46	1	3/15/96 9:30	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	528	12	3/15/96 11:30	EPA 130.2	TM
Settleable Solids, ml/L/hr	0.2	0.1	3/13/96 13:20	EPA 160.5	LS
Sulfate, mg/L	533	100	3/19/96 11:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,280	5	3/14/96 2:45	EPA 160.1	MO
Total Suspended Solids, mg/L	15	2.5	3/13/96 13:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	62.8	0.1	3/18/96 13:49	EPA 200.7	MA
Iron (T), as Fe, mg/L	0.513	0.005	3/19/96 13:15	EPA 200.7	MA
Iron (D), as Fe, mg/L	< 0.01	0.01	3/18/96 13:49	EPA 200.7	MA
Magnesium (D), as Mg, mg/L	86.2	0.1	3/18/96 13:49	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.014	0.005	3/19/96 13:15	EPA 200.7	MA
Manganese (D), as Mn, mg/L	0.02	0.01	3/18/96 13:49	EPA 200.7	MA
Potassium (D), as K, mg/L	4.0	0.1	3/18/96 13:49	EPA 200.7	MA
Sodium (D), as Na, mg/L	233	0.1	3/18/96 13:49	EPA 200.7	MA
Oil & Grease, mg/L	< 5	5	3/21/96 12:00	EPA 413.1	EG
Cation,	20.5				
Anion,	21.3				
% Difference,	2.00				

Approved By: R. Plum

CHEMTECH-FORD

Date: 3/26/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

Group #: 7157
Lab #: 96-U002763
Project: DOGM
Sample Desc: Ice-1

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 11:05
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Receiving Temperature, C	4	0	3/13/96	9:40		RCG

NOTE: Sample submitted on ice.

Approved By: R Zuber

CHEMTECH-FORD

Date: 12/13/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

Group #: 5484
Lab #: 95-U037917
Sample Desc: ICE-1

Date Sampled:
Date Submitted: 11/22/95

Time Sampled:
Time Received: 14:06

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	563	1	11/30/95 12:30	SM 2320B	TM
Carbonate as CO3, mg/L	8	1	11/30/95 12:30	SM 2320B	TM
Alkalinity, Total, mg/L	474	1	11/30/95 12:30	SM 2320B	TM
Chloride, mg/L	42	1	12/ 5/95 11:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	509	10	12/ 8/95 8:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.2	0.2	11/22/95	EPA 160.5	RG
Sulfate, mg/L	494	7	12/ 4/95 11:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,150	5	11/30/95 14:00	EPA 160.1	MA
Total Suspended Solids, mg/L	11.0	2.5	11/30/95 17:00	EPA 160.2	MA
Calcium (D), as Ca, mg/L	60.4	0.2	12/ 4/95 1:06	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.12	0.04	12/ 4/95 1:04	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.04	0.04	12/ 4/95 1:06	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	90.6	0.1	12/ 4/95 1:06	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	12/ 4/95 1:04	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	12/ 4/95 1:06	EPA 200.7	LH
Potassium (D), as K, mg/L	4.6	0.1	12/ 4/95 1:06	EPA 200.7	LH
Sodium (D), as Na, mg/L	247	0.2	12/ 4/95 1:06	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	12/ 4/95 16:00	EPA 413.1	EG
Cation,	21.33				
Anion,	20.96				
% Difference,	0.90				

Approved By: _____

(generic.rpt)

CHEMTECH ANALYTICAL LABORATORIES

Date: 11/ 7/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

Group #: 4845
Lab #: 95-U035584
Sample Desc: ICE-1
Date Sampled: 10/20/95
Date Submitted: 10/21/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	599	1	10/30/95 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	3	1	10/30/95 12:00	SM 2320B	TM
Alkalinity, Total, mg/L	496	1	10/30/95 12:00	SM 2320B	TM
Chloride, mg/L	40	3	10/26/95 13:20	EPA 325.3	TM
Hardness, EDTA Titration mg/L	500	25	10/24/95 13:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.2	0.2	10/21/95 12:00	EPA 160.5	MA
Sulfate, mg/L	475	10	10/26/95 22:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,160	10	10/25/95 12:00	EPA 160.1	MA
Total Suspended Solids, mg/L	3.0	2.5	10/25/95 17:00	EPA 160.2	MA
Calcium (T), as Ca, mg/L	57.0	0.2	10/30/95 10:03	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.16	0.04	10/30/95 10:03	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.04	0.04	11/ 1/95 16:31	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	76.7	0.1	11/ 1/95 16:31	EPA 200.7	LH
Manganese (T), as Mn, mg/L	< 0.01	0.01	10/30/95 10:03	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	11/ 1/95 16:31	EPA 200.7	LH
Potassium (D), as K, mg/L	3.3	0.1	11/ 1/95 16:31	EPA 200.7	LH
Sodium (D), as Na, mg/L	208	0.2	11/ 1/95 16:31	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	10/31/95 11:55	EPA 413.1	RH
Cation, meq/L	18.79				
Anion, meq/L	20.94				
% Difference, %	6.70				

Approved By: R Zull

(generic rot)

Sunnyside Coal Company
Debtor in Possession
Act/007/007
1994 WATER MONITORING DATA

SAMPLE ICE-1 Icelander Wash - ephemeral stream
Monthly flow & field, Quarterly laboratory analysis

Parameter	Units	Jan 94	Feb 94	Mar 94	Apr 94	May 94	Jun 94
Flow	gpm	300	55	22	300	540	[1]
pH	standard	8.00	8.30	8.50	8.50	8.70	
Temp	deg. C			3.0	3.0	11.0	
Dissolved Oxygen	ppm	6.6		12.0	9.4		
Alkalinity, Bicarbonate	mg/l	537		[**]	530	564	
Alkalinity, Carbonate	mg/l	1.1		[**]	<1	<1	
Alkalinity, Total	mg/l			[**]	435	462	
Anions	meq/l	32		[**]	30.4	27.6	
Calcium, Total	mg/l	137		[**]	123	110	
Cations	meq/l	32.7		[**]	31	29.3	
Chloride	mg/l	60		[**]	30	58	
Conductivity	umhos/cm	2,500	2,300	2,300	2,570	2,450	
Hardness, Total	mg/l	910		[**]	863	785	
Iron, Total	mg/l	1.4		[**]	<.2	0.5	
Magnesium, Total	mg/l	138		[**]	135	124	
Manganese, Total	mg/l	<0.1		[**]	<0.1	<0.1	
Oil & Grease	mg/l	<7	<5	[**]	<5	<5	
Potassium, Total	mg/l	8		[**]	5	6	
Sodium, Total	mg/l	329		[**]	316	312	
Solids, Setteable	mg/l	<0.5		[**]	<0.5	<0.5	
Solids, Total Dissolved	mg/l		2,228	[**]	1,930	1,790	
Solids, Total Suspende	mg/l	114	24	[**]	6	16	
Sulfate	mg/l	1,030		[**]	1,000	800	
C-A Balance	%			[**]	1.00	2.90	

[1] Monitoring conducted by Sunnyside Cogeneration
[**] Sample collected. Lab results withheld pending resolution of Chapter 11 filing.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 158103
Sample Name: ICE-1/121994
Sample Date: 12/19/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

CM 4-7

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	593 mg/l	-	1330	12/22/95	BH
Alkalinity Carbonate as CO3	310.1	14 mg/l	-	1330	12/22/95	BH
Alkalinity Total as CaCO3	310.1	510 mg/l	0.4	1330	12/22/95	BH
Chloride as Cl	325.3	74 mg/l	0.7	1400	01/09/95	CC
Sulfate as SO4	375.2	770 mg/l	2	1500	12/30/94	DD
CATIONS						
Calcium as Ca	200.7	104 mg/l	0.1	1130	01/12/95	BH
Hardness as CaCO3	2340B	787 mg/l	-	1130	01/12/95	BH
Magnesium as Mg	200.7	128 mg/l	0.1	1130	01/12/95	BH
Potassium as K	258.1	5 mg/l	0.2	1430	12/29/94	AAH
Sodium as Na	200.7	312 mg/l	0.8	1030	01/10/95	BH
INORGANICS						
Electrical Conductivity	120.1	2500 umhos/cm	7	1500	12/29/94	HB
Oil & Grease	413.1	<1 mg/l	1	1400	01/04/95	DD
Settleable Solids	160.5	<0.1 ml/l	0.1	-	12/21/94	DD
Total Dissolved Solids	160.1	1780 mg/l	6	1700	12/22/94	CC
Total Suspended Solids	160.2	9 mg/l	2	1530	12/22/94	CC
METALS						
Aluminum as Al (Dissolved)	200.7	0.2 mg/l	0.02	1515	01/03/95	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1600	01/04/95	AAH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1345	01/03/95	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0000	1800	01/10/95	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1515	01/03/95	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1345	01/03/95	BH
Iron as Fe (Total)	200.7	0.26 mg/l	0.006	1420	01/10/95	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	01/06/95	AAH
Manganese as Mn (Dissolved)	200.7	<0.04 mg/l	0.001	1345	01/03/95	AAH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1420	01/10/95	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1600	01/03/95	BH
Selenium as Se (Dissolved)	270.3	0.003 mg/l	0.001	1500	01/03/95	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1345	01/03/95	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.02	1300	12/28/94	CC
Nitrite as N	353.2	<0.05 mg/l	0.005	1000	12/21/94	DD
Phosphorous Total	365.1	0.02 mg/l	0.003	1630	01/10/95	CC
Nitrate as N	353.2	0.50 mg/l	0.004	1200	12/27/94	BH

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 150824
Sample Name: ICE-1/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1330
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS	**29.84 meq/l**				
Alkalinity Bicarbonate as HCO3	443 mg/l	-	1400	05/03/94	DD
Alkalinity Carbonate as CO3	11 mg/l	-	1400	05/03/94	DD
Alkalinity Total as CaCO3	382 mg/l	0.84	1400	05/03/94	DD
Chloride as Cl	60 mg/l	1.41	1530	04/27/94	DD
Sulfate as SO4	985 mg/l	2.29	1430	05/09/94	DD
CATIONS	**30.19 meq/l**				
Calcium as Ca	108 mg/l	0.39	1530	05/11/94	BH
Hardness as CaCO3	854 mg/l	-	1530	05/11/94	BH
Magnesium as Mg	142 mg/l	0.31	1530	05/11/94	BH
Potassium as K	13 mg/l	0.18	1000	05/09/94	AH
Sodium as Na	294 mg/l	0.81	1000	04/25/94	AH
INORGANICS					
Electrical Conductivity	2800 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	<1 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	1860 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	71 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AAH
Boron as B (Dissolved)	* <1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	05/11/94	AH
Copper as Cu (Dissolved)	*<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	*<0.5 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	0.35 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	*<0.2 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	0.10 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	*<0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	*<0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	0.08 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	0.32 mg/l	0.05	1330	04/22/94	DD
Phosphorous Total	0.02 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148527
Sample Name: ICE-1/0113394
Sample Date: 01/13/94
Collected by: GREG McDONALD
Time Sampled: 1454
Sample Type: SURFACE WATER

Am 4-7

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS					
Alkalinity Bicarbonate as	519 mg/l		1100	01/22/94	HB
Alkalinity Carbonate as C	0 mg/l		1100	01/22/94	HB
Alkalinity Total as CaCO3.	425 mg/l	0.84	1100	01/22/94	HB
Chloride as Cl	59 mg/l	1.41	1400	01/26/94	HB
Sulfate as SO4	943 mg/l	2.29	1115	02/02/94	CC
CATIONS					
Calcium as Ca	110 mg/l	0.39	1600	02/04/94	BH
Hardness as CaCO3	850 mg/l		1600	02/04/94	BH
Magnesium as Mg	140 mg/l	0.31	0930	01/21/94	BH
Potassium as K	10 mg/l	0.18	1400	01/28/94	AH
Sodium as Na	298 mg/l	0.81	1600	02/04/94	BH
INORGANICS					
Oil & Grease	2 mg/l	0.9	1030	01/27/94	TK
Settleable Solids	<0.1 ml/l	0.1	1045	01/19/94	CC
Total Dissolved Solids	1780 mg/l	11.7	1720	01/20/94	HB
Total Suspended Solids	11 mg/l	3.5	1300	01/21/94	HB
METALS					
Aluminum as Al (Dissolved	* <0.5 mg/l	0.023	1400	02/03/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	0930	01/20/94	AH
Boron as B (Dissolved)	* <0.5 mg/l	0.045	1100	02/03/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1100	01/27/94	BH
Copper as Cu (Dissolved)	* <0.10 mg/l	0.005	1100	02/03/94	BH
Iron as Fe (Dissolved)	* <0.25 mg/l	0.008	1100	02/03/94	BH
Iron as Fe (Total)	0.30 mg/l	0.008	1630	02/03/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1300	01/20/94	AH
Manganese as Mn (Dissolve	* <0.10 mg/l	0.003	1100	02/03/94	BH
Manganese as Mn (Total)	* <0.10 mg/l	0.003	1630	02/03/94	BH
Molybdenum as Mo (Dissolv	* <0.25 mg/l	0.023	1100	02/03/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1130	01/21/94	AH
Zinc as Zn (Dissolved)	* <0.10 mg/l	0.008	1100	02/03/94	BH

* Higher detection limit is due to interference present in the sample.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148527
Sample Name: ICE-1/0113394
Sample Date: 01/13/94
Collected by: GREG McDONALD
Time Sampled: 1454
Sample Type: SURFACE WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
NUTRIENTS					
Ammonia Nitrogen as N	0.13 mg/l	0.034	1515	01/24/94	CC
Nitrite as N	<0.05 mg/l	0.005	1200	01/20/94	DD
Phosphorous Total	0.05 mg/l	0.002	1600	02/09/94	CC
Nitrate as N	0.69 mg/l	0.005	1015	01/28/94	CC

CHEMTECH
ANALYTICAL LABORATORY
6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 12-31-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

DATE SUBMITTED: 12-09-92
DATE SAMPLED: 12-07-92 @ 1145

CERTIFICATE OF ANALYSIS

SAMPLE ID: ICE-1
LAB: U088704

PARAMETER		ANALYST/DATE/METHOD
Bicarbonate as HCO_3, mg/l	589	RG 12-09-92 EPA 310.1
Carbonate as CO_3, mg/l	4.7	RG 12-09-92 EPA 310.1
Calcium as Ca, mg/l	107	AR 12-11-92 EPA 215.1
Chloride as Cl, mg/l	56.8	NW 12-10-92 EPA 325.3
Hardness as $CaCO_3$, mg/l	618	NW 12-10-92 EPA 130.2
Magnesium as Mg, mg/l	96.0	AR 12-11-92 EPA 242.1
Potassium as K, mg/l	9.8	AR 12-14-92 EPA 258.1
Sodium as Na, mg/l	334	AR 12-14-92 EPA 273.1
Sulfate as SO_4, mg/l	837	MS 12-10-92 EPA 375.4
TDS, mg/l	1,642	RG 12-11-92 EPA 160.1
Acid Soluble Iron as Fe (T), mg/l	0.92	AR 12-28-92 EPA 236.1
Manganese as Mn (T), mg/l	0.04	AR 12-28-92 EPA 243.1
Oil & Grease, mg/l	<.6	RG 12-16/17 EPA 413.1
Settleable Solids, ml/l	<.25	RG 12-09-92 EPA 160.5
TSS, mg/l	62	RG 12-11-92 EPA 160.2
Cation, meq/l	28.02	
Anion, meq/l	28.84	
pH - Field	9.1	
D.O. - Field	19.8	
Conductivity - Field	4,850	

NOTE: Samples were not submitted on ice.

Joel Workman

CHEMTECH
ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 12-09-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

CW 4-7

DATE SUBMITTED: 11-10-92
DATE SAMPLED: 11-06-92 by Peter Hess

CERTIFICATE OF ANALYSIS

SAMPLE ID:	ICE-1 @ 1215	
LAB:	U087941	
PARAMETER		ANALYST/DATE/TIME/METHOD
Bicarbonate as HCO_3, mg/l	507	RG 11-19-92 @0930 EPA 310.1
Carbonate as CO_3, mg/l	2.4	RG 11-19-91 @0930 EPA 310.1
Calcium as Ca, mg/l	140	AR 11-27-92 @1100 EPA 215.1
Chloride as Cl, mg/l	62.7	TM 11-11-92 @0830 EPA 325.3
Hardness as $CaCO_3$, mg/l	884	TM 11-11-92 @1215 EPA 130.2
Magnesium as Mg, mg/l	147	AR 11-25-92 @1530 EPA 242.1
Potassium as K, mg/l	9.2	AR 11-19-92 @0850 EPA 258.1
Sodium as Na, mg/l	282	AR 11-17-92 @1000 EPA 273.1
Sulfate as SO_4, mg/l	943	TM 11-12-92 @1800 EPA 375.4
TDS, mg/l	1,862	RG 11-12-92 @0930 EPA 160.1
Iron as Fe (T), mg/l	0.42	AR 12-05-92 @1600 EPA 236.1
Manganese as Mn (T), mg/l	0.035	AR 12-06-92 @1010 EPA 243.1
Oil & Grease, mg/l	2.5	RG 11-17-92 @1600 EPA 413.1
Phenols, mg/l	<.002	TH 11-30-92 @0930 EPA 420.1
Settleable Solids, ml/l	<.2	RH 11-10-92 @1630 EPA 160.5
TSS, mg/l	40	RG 11-10-92 @1700 EPA 160.2
Cation, meq/l	31.58	
Anion, meq/l	29.80	
pH - Field	9.0	
D.O. - Field	14.8	
Conductivity - Field	3,400	

Joel Workman
Joel Workman

CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-24-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

DATE SUBMITTED: 10-28-92

CM 4-7

CERTIFICATE OF ANALYSIS

SAMPLE ID: ICE-1
10-23-92
@ 1325

LAB: U083174

PARAMETER		ANALYST/DATE/TIME/METHOD
Bicarbonate as HCO_3, mg/l	486	RG 11-02-92 @1030 EPA 310.1
Carbonate as CO_3, mg/l	7.2	RG 11-02-92 @1030 EPA 310.1
Calcium as Ca, mg/l	121	AR 11-03-92 @1650 EPA 215.1
Chloride as Cl, mg/l	60.0	TM 10-29-92 @0930 EPA 325.3
Hardness as $CaCO_3$, mg/l	850	TM 10-29-92 @1100 EPA 130.2
Magnesium as Mg, mg/l	139	AR 11-03-92 @1250 EPA 242.1
Potassium as K, mg/l	5.5	AR 11-02-92 @1100 EPA 258.1
Sodium as Na, mg/l	279	AR 11-02-92 @1400 EPA 273.1
Sulfate as SO_4, mg/l	923	TM 10-30-92 @0815 EPA 375.4
TDS, mg/l	1,832	RG 10-31-92 @1430 EPA 160.1
Iron as Fe (T), mg/l	0.59	AR 11-04-92 @0900 EPA 236.1
Manganese as Mn (T), mg/l	<.01	AR 11-03-92 @1630 EPA 243.1
Oil & Grease, mg/l	<.5	RG 11-10-92 @1400 EPA 413.1
Phenols, mg/l	<.002	TH 11-06-92 @1050 EPA 420.1
Settleable Solids, ml/l	<.1	RH 10-31-92 @1500 EPA 160.5
TSS, mg/l	12	RG 10-31-92 @1430 EPA 160.2
pH - Field	8.9	
D.O. - Field	7.1	
Conductivity - Field	4,400	
Cation, meq/l	29.75	
Anion, meq/l	29.12	

Joel Workman

Joel Workman

CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 12-04-91

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

CM 4-1

DATE SUBMITTED: 11-05-91 - SCC

DATE SAMPLED: 11-04-91 @ 10:45 by K.H.

CERTIFICATE OF ANALYSIS

SAMPLE ID:	ICE-1			
LAB:	U070457			
PARAMETER		**ANALYST/DATE/MDL/METHOD**		
Bicarbonate as HCO_3, mg/l	527	RG 11-05-91	0	EPA 310.1
Carbonate as CO_3, mg/l	17.2	RG 11-05-91	0	EPA 310.1
Calcium as Ca, mg/l	129	AR 11-22-91	0.1	EPA 215.1
Chloride as Cl, mg/l	54.6	TM 11-06-91	0.5	EPA 325.3
Hardness as $CaCO_3$, mg/l	880	TM 11-05-91	1.0	EPA 130.2
Magnesium as Mg, mg/l	134	AR 11-22-91	0.1	EPA 242.1
Potassium as K, mg/l	6.4	AR 11-22-91	0.1	EPA 258.1
Sodium as Na, mg/l	251	AR 11-22-91	0.1	EPA 273.1
Sulfate as SO_4, mg/l	854	TM 11-08-91	0.5	EPA 375.4
TDS, mg/l	1,760	RG 11-05-91	5.0	EPA 160.1
Iron as Fe (T), mg/l	0.365	AR 12-03-91	0.01	EPA 236.1
Manganese as Mn (T), mg/l	0.020	AR 11-19-91	0.01	EPA 243.1
Oil & Grease, mg/l	<.5	RG 11-06-91	0.5	EPA 413.1
Settleable Solids, ml/l	<.1	RG 11-05-91	0.1	EPA 160.5
TSS, mg/l	4.4	RG 11-05-91	1.0	EPA 160.2
Cation, meq/l	28.54			
Anion, meq/l	28.54			
pH (Field)	7.74			
D.O. (Field), mg/l	9.6			
Conductivity (Field), umhos/cm	4,400			
Water Temp. (Field)	7^0C			

Rex Henderson

ICELANDER	— 1			S		B		O —			(n) # SAMPLES	MEAN (AVG)	RANGE High	RANGE Low	
	2-7	3-12	4-7	6-4	7-14	8-7	10-28	11-26	12-29						
TURBIDITY (JTU)	2.00			5.00				1.00	1.60		4	2.4	5.0	1.0	
CONDUCTIVITY umhos	1900	1920	1600	550 x	1700	1700	1400	2500	2290		8	1875	2500	1400	
[illegible]	8.10	8.00	8.10	8.00	7.80	8.00		7.60	8.00		8	7.95	8.10	7.60	
TOT. DISOLV. SOL.	1238	1250	1120	355 x	1300	1105	980	1630	1400		8	1255	1630	980	
TOT. SUSP. SOL	39.5	31.5	25.5	23.5	12.0	18.0	9.0	23.0	42.0		9	25	42	9	
ACIDITY	14.0	6.0	<.1	<.1	<.1	<.1	<.1	30.0	<.1		9	5.6	30	<.1	
ALKILINITY	370	350	382	246	380	368	400	395	382		9	364	400	246	
ARSENIC (As)	.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001		9	<.001	.001	<.001	
BARIUM (Ba)	.116			.244				.610	.330		4	.325	.610	.116	
BICARB (HCO_3^-)	451.4			251.3				481.9	422.1		4	402	482	251	
BORON (B)	.260			.060				.193	.013		4	.131	.26	.013	
CADMIUM (Cd)	<.001			<.001				<.001	<.001		4	<.001	<.001	<.001	
CALCIUM (Ca)	143.2			49.6				112.0	119.20		3	125	143	112	
CARBONATE (CO_3)	<.01			24.0				<.01	21.6		4	11.4	24	<.01	
CHLORIDE (Cl)	14.0	46.0	50.0	2.0 x	40.0	48.0	20.2	44.0	36.0		8	37.3	50	14	
CHROM hex. (Cr)	.004			.005				.002	.002		4	.003	.005	.002	
COPPER (Cu)	.010			.012				.010	.002		4	.009	.012	.002	
FLUORIDE (F)	.24			.18				.30	.20		4	.23	.30	.18	
HARDNESS ($CaCO_3$)	640			260				920	928		4	687	928	260	
IRON dis/filt. (Fe)	.140	.150	.130	.140	.320	.130	.144	.278	.165		9	.177	.320	.130	
IRON total (Fe)	.420	.380	.330	.350	.490	.210	.320	.299	.330		9	.348	.490	.210	
LEAD (Pb)	<.001	<.001	<.001	<.001	.002	<.001	<.001	<.001	<.001		9	<.001	<.001	<.001	
MAGNESIUM (Mg)	68.16			32.64				153.6	151.20		4	101.4	153.6	32.64	
MANGANESE (Mn)	.030	.037	.030	.015	.040	.011	.010	.036	.030		9	.026	.040	.010	
MERCURY (Hg)	<.0002			<.0002				<.0002	<.0002		4	<.0002	<.0002	<.0002	
NICKEL (Ni)	.003			<.001				<.001	<.001		4	.001	.003	<.001	
NITRATE (NO_3)	0.92	1.80	2.00	.11	1.36	1.29	.86	1.12	.12		9	1.06	2.00	.11	
PHOSPHATE (PO_4)		.220	.050	<.001 x	.04	.020	.060	.020	.060		7	.07	.22	.02	
POTASSIUM (K)	4.0	5.3	7.85	1.11	4.45	4.04	1.50	4.20	4.66		9	4.12	7.85	1.11	
SELENIUM (Se)	<.001	<.001	<.001	<.001	.003	.003	<.001	<.001	<.001		9	.001	.003	<.001	
SILICA (SiO_3)	19.50			18.50				17.00	12.50		4	16.9	19.5	12.5	
SILVER (Ag)	.001	.002	.006	<.001	.002	<.001	<.001	<.001	<.001		9	.002	.006	<.001	
SODIUM (Na)	170			36.5				870	160.2		4	309	870	36.5	(Na)
SULPHATE (SO_4)	610	700	660	80 x	465	677	435	200	800		8	570	800	200	
ZINC (Zn)	.010			.025				.047	.055		4	.034	.055	.010	
OIL & GREASE	3.20	14.0	6.0	3.40	<.1 x	4.40	54.8 x	0.80	.40		7	4.6	14.0	.40	

CHEMTECH-FORD ANALYTICAL LABORATORIES

7-29-98

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

FIELD DATA: (From mine's spread-sheet)
Temp: 13.3 C
pH: 8.49 su
SC: 1900 um hos/cm
DO: 8 mg/L
Flow: 80 GPM

Group #: 23282
Lab #: 98-U004453
Project: BASELINE
Sample Desc: F-2

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 10:10
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Bicarbonate as HCO3, mg/L	576	1	6/11/98	9:00	SM 2320B	TSM
Carbonate as CO3, mg/L	10	1	6/11/98	9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	488	1	6/11/98	9:00	SM 2320B	TSM
Chloride (D), mg/L	46	1	6/12/98	7:45	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	589	0.2	6/16/98	8:39	CAL	RIF
Hardness Index: Very Hard Water						
Settleable Solids, mL/L/hr	< 0.1	0.1	6/ 5/98	12:00	EPA 160.5	LPS
Sulfate, mg/L	556	125	6/ 9/98	10:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,330	10	6/10/98	11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	9	1.2	6/ 5/98	12:00	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	95.7	0.2	6/12/98	13:10	EPA 200.7	EG
Calcium (D), as Ca, mg/L	88.2	0.2	6/10/98	11:31	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.41	0.02	6/12/98	13:10	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.04	0.02	6/10/98	11:31	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	95.7	0.2	6/12/98	13:10	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	89.5	0.2	6/10/98	11:31	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	6/12/98	13:10	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.01	0.01	6/10/98	11:31	EPA 200.7	EG
Potassium (D), as K, mg/L	4.3	0.2	6/10/98	11:31	EPA 200.7	EG
Sodium (D), as Na, mg/L	203	0.2	6/10/98	11:31	EPA 200.7	EG

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107-6905
801 262-7399 PHONE
801 262-7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

7-29-54

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 23282
Lab #: 98-U004453
Project: BASELINE
Sample Desc: F-2

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 10:10
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Oil & Grease, mg/L	< 5	5	6/ 9/98 10:00	SM18 5520-B	KRF
Cation Sum, meq/L	20.71				
Anion Sum, meq/L	22.64				
% Cation/Anion Difference,	4.45				
Receiving Temperature, C	10.3		6/ 5/98 10:25		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6925
801 262-7399 PHONE
801 262-7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001944
Project: BASELIN MONITORING
Sample Desc: F-2

Date Sampled: 3/18/98
Date Submitted: 3/19/98

Time Sampled: 9:00
Time Received: 9:15

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Oil & Grease, mg/L	< 5	5	3/24/98 14:00	SM18 5520-B	KRF
Receiving Temperature, C	2.3		3/19/98 9:15		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001836
Project: BASLINE MONITORING
Sample Desc: F-2

Date Sampled: 3/16/98
Date Submitted: 3/17/98

Time Sampled: 10:40
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	554	1	3/19/98 13:00	SM 2320B	TSM
Carbonate as CO3, mg/L	3	1	3/19/98 13:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	459	1	3/19/98 13:00	SM 2320B	TSM
Chloride (D), mg/L	42	1.7	3/19/98 11:30	EPA 325.3	TSM
Hardness, EDTA Titration, mg/L	578	12	3/19/98 12:00	EPA 130.2	TSM
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/17/98 14:30	EPA 160.5	RCG
Sulfate, mg/L	501	167	3/20/98 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,220	10	3/19/98 13:15	EPA 160.1	LPS
Total Suspended Solids, mg/L	< 1	1	3/17/98 14:30	EPA 160.2	RCG
Calcium (D), as Ca, mg/L	76.1	0.3	3/25/98 11:08	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.15	0.02	3/18/98 11:59	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	3/25/98 11:08	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	83.1	0.2	3/25/98 11:08	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	3/18/98 11:59	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	3/25/98 11:08	EPA 200.7	EG
Potassium (D), as K, mg/L	3.1	0.2	3/25/98 11:08	EPA 200.7	EG
Sodium (D), as Na, mg/L	186	2	3/25/98 11:08	EPA 200.7	EG
Cation, meq/L	18.81				
Anion, meq/L	20.78				

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001836
Project: BASLINE MONITORING
Sample Desc: F-2

Date Sampled: 3/16/98
Date Submitted: 3/17/98

Time Sampled: 10:40
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
% Difference,	4.99				
Receiving Temperature, C	4.1		3/17/98 9:50		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

3-2-98

DEC 1 1 1997

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012986
Project: BASE LINE
Sample Desc: F-2

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 11:45
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	458	1	12/ 2/97 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	8	1	12/ 2/97 12:00	SM 2320B	TM
Alkalinity, Total (CaCO3), mg/L	389	1	12/ 2/97 12:00	SM 2320B	TM
Chloride (D), mg/L	26	1	12/ 1/97 12:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	449	12	12/ 1/97 14:00	EPA 130.2	TM
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	11/21/97 11:45	EPA 160.5	LS
Sulfate, mg/L	308	100	12/ 5/97 10:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,160	10	11/28/97 12:45	EPA 160.1	LS
Total Suspended Solids, mg/L	8	1	11/21/97 11:45	EPA 160.2	LS
Calcium (T), as Ca, mg/L	62.2	0.1	11/26/97 10:20	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.40	0.02	11/26/97 10:20	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.08	0.02	11/25/97 13:04	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	71.4	0.1	11/25/97 13:04	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	11/26/97 10:20	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.02	0.01	11/25/97 13:04	EPA 200.7	LH
Potassium (D), as K, mg/L	3.3	0.1	11/25/97 13:04	EPA 200.7	LH
Sodium (D), as Na, mg/L	148	0.1	11/25/97 13:04	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	11/25/97 14:30	SM18 5520-B	KRF
Cation,	15.51		12/ 9/97		RH

Approved By: R2

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107

CHEMTECH-FORD

3-2-98

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012986
Project: BASE LINE
Sample Desc: F-2

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 11:45
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Anion,	14.92		12/ 9/97		RH
% Difference,	-1.94				
Receiving Temperature, C	3.0		11/21/97 9:55		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

CHEMTECH-FORD

ANALYTICAL LABORATORIES

RECEIVED JUN 19 1997

Date: 6/17/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

FIELD DATA FROM MULTI-SITE/PAGE

TEMP : 10.7 °C
pH : 8.28
SC : 2280 umhos
DO : 9.1 mg/L
FLOW : 21 gpm

Group #: 15491
Lab #: 97-U005269
Project: BASELINE SAMPLING
Sample Desc: F-2

Date Sampled: 5/14/97 Time Sampled: 10:10
Date Submitted: 5/15/97 Time Received: 9:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	547	1	5/19/97 7:30	SM 2320B	TM
Carbonate as CO3, mg/L	7	1	5/19/97 7:30	SM 2320B	TM
Alkalinity, Total (CaCO3), mg/L	461	1	5/19/97 7:30	SM 2320B	TM
Chloride (D), mg/L	72	1	5/15/97 16:30	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	773	12	5/19/97 12:00	EPA 130.2	TM
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/15/97 14:50	EPA 160.5	LS
Sulfate, mg/L	648	250	5/20/97 9:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,620	10	5/19/97 13:45	EPA 160.1	LS
Total Suspended Solids, mg/L	4	2.5	5/15/97 15:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	119	0.4	5/19/97 16:32	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.49	0.02	5/19/97 14:44	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.19	0.02	5/16/97 14:46	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	100	0.1	5/16/97 14:46	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	5/19/97 14:44	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.03	0.01	5/16/97 14:46	EPA 200.7	LH
Potassium (D), as K, mg/L	3.5	0.1	5/16/97 14:46	EPA 200.7	LH
Sodium (D), as Na, mg/L	264	0.4	5/19/97 16:32	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	5/29/97 15:00	SM18 5520-B	BJP
Cation, meq/L	25.75				

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7373 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 6/17/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 15491
Lab #: 97-U005269
Project: BASELINE SAMPLING
Sample Desc: F-2

MP 7-18

Date Sampled: 5/14/97
Date Submitted: 5/15/97

Time Sampled: 10:10
Time Received: 9:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Anion, meq/L	24.73				
% Difference,	-2.03				
Receiving Temperature, C	5.5		5/15/97 9:30		RCG

NOTE: Sample submitted on ice.

Approved By: RZ

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Carbon County, Utah
UPDES Permit Number UT0024759

OUTFALL NUMBER: F-2

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Field Parameters					Sample Taken	Observations (color,sheen,ordor,etc.)
						Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/L		
10-20-95	12:18	R. MILLER	CLEAR	YES	15		12.9°C	8.41	2298	6.8	YES	NO
11-21-95	10:50	R. MILLER	CLEAR	YES	15		9.7°C	8.34	2300	5.8	YES	

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: F-2 Whitmore Springs

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1141	RB6/RE6	clear	yes	CC	26.0	3.5	8.20	2310	15.6	yes	
1/24/95	1351	RB6/6m	slight snow	yes	CC	20.0	2.1	8.42	2541*	8.7	no	*SC did not read line; data reading error.
2/23/95	1317	RB6/6m	sunny	yes	CC	19.0	8.9	8.31	2068.3	7.6	no	

Flow Measurement Methods: W= Weir, VE= Visual Estimate, CC= Calibrated Container, DF= Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: F-2 (Wh. Sp) DOGM

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	gpm Flow ~~(cfs)~~	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (~~F~~ C)	pH	SC (umhos)	DO ~~Meter No.~~	Collection Point	Sample Taken (yes/no)
6/30/93	1515	GMCW	Sunny/Hot	yes	Clear water	100	CC		25	8.4	2300	7.8	Marked Point	yes
7/27	1456	GM	Sunny/Hot	yes	"	~90	V.i		23	8.02	1900	5.9	"	~~yes~~
8/26/93	1058	GM	Overcast	yes	"	100	CC		15	7.18	2150	6.2	"	NO
9/2/93	1757	GMCW	SW	yes	"	100	CC		17	7.54	2100	6.4	"	yes
10/27	0730	MH	windy	yes	"	100	CC		1.5	8.3	1200	7.0	"	NO
11/16	1310	MH	Cold	yes	"	100	CC		5.3	8.49	1300	6.20	"	NO
12/9	1530	GM	Cold	yes	Grey from TSS(004)	150	CC		6.0	7.82	1800	12.7	"	NO
1/13/94	1535	GM	Cold Clear	yes	Clear	~90	CC		5.6	8.51	1824	6.2	"	yes
2/28	1320	GM	RC Cool	yes	Clear Water	35	CC		7.7	7.62	2180	6.9	"	NO
3/31/94	12:54	CW/TMM	Warm, Sunny	YU		25.5	CC		13.6	8.01	1500	6.4	"	NO
4/19	1525	OW/GM	" "	yes	Clear	36	CC		15.5	8.40	1800	8.6	"	yes
5/31/94	1247	RL	cool, rain	yes	clear	85	CC		12.5	8.16	1650	9.9	"	NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

RECEIVED APR - 7 1997

Date: 4/ 1/97

NB 4-18-97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 13638
Lab #: 97-U001841
Project: BASELINE
Sample Desc: F-2

QC CW 6/19

Date Sampled: 2/19/97
Date Submitted: 2/20/97

Time Sampled: 9:35
Time Received: 9:45

CERTIFICATE OF ANALYSIS

	PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
	INORGANIC PARAMETERS					
[illegible]	[illegible]icarbonate as HCO3, mg/L	570	1	3/ 4/97 10:10	SM 2320B	AJP
[illegible]	[illegible]arbonate as CO3, mg/L	< 1	1	3/ 4/97 10:10	SM 2320B	AJP
02	Alkalinity, Total, mg/L	467	1	3/ 4/97 10:10	SM 2320B	AJP
53	Chloride (D), mg/L	63	2	2/25/97 11:22	EPA 325.3	AJP
03	Hardness, EDTA Titration, mg/L	773	25	3/ 7/97 11:37	EPA 130.2	AJP
	Hardness Index: Very Hard Water					
	Settleable Solids, mL/L/hr	< 0.1	0.1	2/20/97 10:45	EPA 160.5	LS
60	Sulfate, mg/L	823	500	3/ 2/97 10:00	EPA 375.4	TH
08	Total Dissolved Solids, mg/L	1,620	5	2/24/97 1:45	EPA 160.1	LS
16	Total Suspended Solids, mg/L	< 2.5	2.5	2/20/97 11:10	EPA 160.2	LS
36	Calcium (D), as Ca, mg/L	116	0.1	2/25/97 11:08	EPA 200.7	LH
145	Iron (T), as Fe, mg/L	0.23	0.02	2/21/97 10:01	EPA 200.7	LH
40	Iron (D), as Fe, mg/L	0.04	0.02	2/25/97 11:08	EPA 200.7	LH
42	Magnesium (D), as Mg, mg/L	117	0.1	2/25/97 11:08	EPA 200.7	LH
149	Manganese (T), as Mn, mg/L	0.03	0.01	2/21/97 10:01	EPA 200.7	LH
43	Manganese (D), as Mn, mg/L	0.02	0.01	2/25/97 11:08	EPA 200.7	LH
46	Potassium (D), as K, mg/L	4	2	2/25/97 11:08	EPA 200.7	LH
48	Sodium (D), as Na, mg/L	255	0.1	2/25/97 11:08	EPA 200.7	LH
19	Oil & Grease, mg/L	< 5	5	3/ 3/97 13:30	SM18 5520-B	BJP
	Cation, meq/L	26.6				
	Anion, meq/L	28.2				

Approved By: RR

(generic.rpt)

* FIELD DATA SUBMITTED ON SEPARATE PAGE
TEMP-WATER: 8.1 °C DO: 8.1 mg/L
pH: 8.41 FLOW: 25 gpm
SP COND: 2240

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE

Date: 4/ 1/97

RECEIVED APR - 7 1997

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 13638
Lab #: 97-U001841
Project: BASELINE
Sample Desc: F-2

Date Sampled: 2/19/97
Date Submitted: 2/20/97

Time Sampled: 9:35
Time Received: 9:45

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Difference,	3.01				
eceiving Temperature, C	2.8		2/20/97 9:45		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE

CHEMTECH-FORD

Date: 12/16/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

UM 3113

Group #: 11702
Lab #: 96-U016783
Sample Desc: F-2

Date Sampled: 11/21/96
Date Submitted: 11/22/96

Time Sampled: 10:05
Time Received: 10:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	643	1	11/25/96 11:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	11/25/96 11:00	SM 2320B	TM
Alkalinity, Total, mg/L	528	1	11/25/96 11:00	SM 2320B	TM
Chloride (D), mg/L	70	1	11/25/96 9:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	818	25	11/25/96 8:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	11/22/96 12:00	EPA 160.5	LS
Sulfate, mg/L	626	166	11/26/96 10:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,570	16	11/25/96	EPA 160.1	JBR
Total Suspended Solids, mg/L	3	2.5	11/22/96 14:00	EPA 160.2	LS
Calcium (D), as Ca, mg/L	117	0.1	12/ 3/96 14:43	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.30	0.02	11/26/96 11:12	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.02	0.02	12/ 3/96 14:43	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	122	0.1	12/ 3/96 14:43	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	11/26/96 11:12	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.03	0.01	12/ 3/96 14:43	EPA 200.7	LH
Potassium (D), as K, mg/L	4	2	12/ 3/96 14:43	EPA 200.7	LH
Sodium (D), as Na, mg/L	275	0.1	12/ 3/96 14:43	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	12/ 2/96 17:00	SM18 5520-B	BJP
Cation, meq/L	28.0				
Anion, meq/L	25.6				
% Difference,	-4.49				
Receiving Temperature, C	2.8		11/22/96 10:30		RCG

Approved By: _____

CHEMTECH-FORD

Date: 12/16/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 11702
Lab #: 96-U016783
Sample Desc: F-2

Date Sampled: 11/21/96
Date Submitted: 11/22/96

Time Sampled: 10:05
Time Received: 10:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample submitted on ice.

Approved By: _____

6100 SOUTH STRATLER
SALT LAKE CITY UTAH
801 263 7288 PHONE

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 10/ 8/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Cm 4-7

Group #: 10516
Lab #: 96-U013619
Project: BASELINE
Sample Desc: F-2

Date Sampled: 9/ 9/96
Date Submitted: 9/11/96

Time Sampled: 12:40
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	676	1	9/17/96 13:30	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	9/17/96 13:30	SM 2320B	TM
Alkalinity, Total, mg/L	554	1	9/17/96 13:30	SM 2320B	TM
Chloride (D), mg/L	64	1	9/13/96 10:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	698	10	9/14/96 10:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	9/11/96 11:45	EPA 160.5	LS
Sulfate, mg/L	667	166	9/18/96 13:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,590	10	9/12/96 15:30	EPA 160.1	KA
Total Suspended Solids, mg/L	< 2.5	2.5	9/11/96 11:45	EPA 160.2	LS
Calcium (D), as Ca, mg/L	107	0.1	9/26/96 10:41	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.14	0.02	10/ 1/96 10:15	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.15	0.02	9/26/96 10:41	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	127	0.1	9/26/96 10:41	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	10/ 1/96 10:15	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.04	0.01	9/26/96 10:41	EPA 200.7	LH
Potassium (D), as K, mg/L	4	2	9/26/96 10:41	EPA 200.7	LH
Sodium (D), as Na, mg/L	290	0.1	9/26/96 10:41	EPA 200.7	LH
Oil & Grease, mg/L	< 6	6	9/17/96 13:00	SM18 5520-B	BJP
Cation, meq/L	28.5				
Anion, meq/L	26.8				
% Difference,	-3.16				

Approved By: R Dun

1250 LAMOILLE HW (generic.rpt)
ELKO, NEVADA 89801
702 738 01[illegible]1 PHONE
702 753 72[illegible]6 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

RECEIVED JUN 17 1996

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

YM
3/13

Group #: 8483
Lab #: 96-U006834
Project: SCA-DOGM BASELINE
Sample Desc: F-2

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 11:00
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	576	1	5/31/96 5:00	SM 2320B	TM
Carbonate as CO3, mg/L	12	1	5/31/96 5:00	SM 2320B	TM
Alkalinity, Total, mg/L	493	1	5/31/96 5:00	SM 2320B	TM
Chloride, mg/L	47	1	5/25/96 9:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	545	12	5/29/96 10:00	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	5/23/96 19:30	EPA 160.5	LS
Sulfate, mg/L	480	100	5/30/96 10:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,230	10	5/31/96 19:05	EPA 160.1	RAL
Total Suspended Solids, mg/L	< 2.5	2.5	5/23/96 19:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	74.7	0.1	6/ 4/96 9:36	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.25	0.01	6/ 4/96 9:37	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.02	0.01	6/ 4/96 9:36	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	88.8	0.1	6/ 4/96 9:36	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.03	0.01	6/ 4/96 9:37	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.03	0.01	6/ 4/96 9:36	EPA 200.7	LH
Potassium (D), as K, mg/L	3.5	0.1	6/ 4/96 9:36	EPA 200.7	LH
Sodium (D), as Na, mg/L	230	0.1	6/ 4/96 9:36	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	5/31/96 11:05	SM18 5520-B	RAL
Cation, meq/L	21.1				
Anion, meq/L	21.2				
% Difference,	0.07				

Approved By: _____

CHEMTECH-FORD ANALYTICAL LABORATORIES

RECEIVED
JUN 17 1996

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 8483
Lab #: 96-U006834
Project: SCA-DOGM BASELINE
Sample Desc: F-2

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 11:00
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Receiving Temperature, C	7	0	5/23/96	9:00		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

CHEMTECH-FORD

Date: 3/26/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

Group #: 7157
Lab #: 96-U002762
Project: DOGM
Sample Desc: F-2

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 10:50
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	551	1	3/14/96 11:00	SM 2320B	TM
Carbonate as CO3, mg/L	12	1	3/14/96 11:00	SM 2320B	TM
Alkalinity, Total, mg/L	471	1	3/14/96 11:00	SM 2320B	TM
Chloride, mg/L	42	1	3/15/96 9:30	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	525	12	3/15/96 11:30	EPA 130.2	TM
Settleable Solids, ml/L/hr	0.1	0.1	3/13/96 13:20	EPA 160.5	LS
Sulfate, mg/L	485	100	3/19/96 11:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,220	5	3/14/96 2:45	EPA 160.1	MO
Total Suspended Solids, mg/L	4	2.5	3/13/96 13:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	73.3	0.1	3/18/96 13:49	EPA 200.7	MA
Iron (T), as Fe, mg/L	0.17	0.01	3/18/96 13:46	EPA 200.7	MA
Iron (D), as Fe, mg/L	0.02	0.01	3/18/96 13:49	EPA 200.7	MA
Magnesium (D), as Mg, mg/L	79.0	0.1	3/18/96 13:49	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.02	0.01	3/18/96 13:46	EPA 200.7	MA
Manganese (D), as Mn, mg/L	0.04	0.01	3/18/96 13:49	EPA 200.7	MA
Potassium (D), as K, mg/L	3.4	0.1	3/18/96 13:49	EPA 200.7	MA
Sodium (D), as Na, mg/L	209	0.1	3/18/96 13:49	EPA 200.7	MA
Oil & Grease, mg/L	< 5	5	3/21/96 12:00	EPA 413.1	EG
Cation,	19.4				
Anion,	20.7				
% Difference,	3.40				

Approved By: _____

CHEMTECH-FORD

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

Date: 3/26/96

Group #: 7157
Lab #: 96-U002762
Project: DOGM
Sample Desc: F-2

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 10:50
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Receiving Temperature, C	4	0	3/13/96	9:40		RCG

NOTE: Sample submitted on ice.

Approved By: R Zum

(generic rpt)

CHEMTECH-FORD

Date: 12/13/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

Group #: 5484
Lab #: 95-U037916
Sample Desc: F-2

Date Sampled:
Date Submitted: 11/22/95

Time Sampled:
Time Received: 14:06

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	608	1	11/30/95 12:30	SM 2320B	TM
Carbonate as CO3, mg/L	3	1	11/30/95 12:30	SM 2320B	TM
Alkalinity, Total, mg/L	503	1	11/30/95 12:30	SM 2320B	TM
Chloride, mg/L	37	1	12/ 5/95 11:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	505	10	12/ 8/95 8:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.2	0.2	11/22/95	EPA 160.5	RG
Sulfate, mg/L	425	7	12/ 4/95 11:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,080	5	11/30/95 14:00	EPA 160.1	MA
Total Suspended Solids, mg/L	3.0	2.5	11/30/95 17:00	EPA 160.2	MA
Calcium (D), as Ca,	68.8	0.2	12/ 4/95 1:02	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.20	0.04	12/ 4/95 1:00	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.04	0.04	12/ 4/95 1:02	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	83.4	0.1	12/ 4/95 1:02	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	12/ 4/95 1:00	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.01	0.01	12/ 4/95 1:02	EPA 200.7	LH
Potassium (D), as K, mg/L	3.7	0.1	12/ 4/95 1:02	EPA 200.7	LH
Sodium (D), as Na, mg/L	226	0.2	12/ 4/95 1:02	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	11/30/95 16:00	EPA 413.1	EG
Cation,	20.22				
Anion,	19.96				
% Difference,	0.70				

Approved By: R. Zimm

(generic.rpt)

CHEMTECH ANALYTICAL LABORATORIES

Date: 11/ 7/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

Group #: 4845
Lab #: 95-U035585
Sample Desc: F-2
Date Sampled: 10/20/95
Date Submitted: 10/21/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	630	1	10/30/95 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	10/30/95 12:00	SM 2320B	TM
Alkalinity, Total, mg/L	517	1	10/30/95 12:00	SM 2320B	TM
Chloride, mg/L	37	3	10/26/95 13:20	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	520	25	10/24/95 13:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.2	0.2	10/21/95 12:00	EPA 160.5	MA
Sulfate, mg/L	436	10	10/26/95 12:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	1,160	10	10/25/95 12:00	EPA 160.1	MA
Total Suspended Solids, mg/L	< 2.5	2.5	10/25/95 17:00	EPA 160.2	MA
Calcium (T), as Ca, mg/L	77.5	0.2	10/30/95 10:05	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.17	0.04	10/30/95 10:05	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.04	0.04	11/ 1/95 16:33	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	69.8	0.1	11/ 1/95 16:33	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	10/30/95 10:05	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	11/ 1/95 16:33	EPA 200.7	LH
Potassium (D), as K, mg/L	2.9	0.1	11/ 1/95 16:33	EPA 200.7	LH
Sodium (D), as Na, mg/L	192	0.2	11/ 1/95 16:33	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	10/31/95 11:55	EPA 413.1	RH
Cation, meq/L	18.04				
Anion, meq/L	20.45				
% Difference, %	6.20				

Approved By: _____

(generic.rpt)

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 158102
Sample Name: F-2/121994
Sample Date: 12/19/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

4/7

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	492 mg/l	-	1300	01/11/95	DD
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1300	01/11/95	DD
Alkalinity Total as CaCO3	310.1	403 mg/l	0.4	1300	01/11/95	DD
Chloride as Cl	325.2	23 mg/l	0.7	1400	01/09/95	CC
Sulfate as SO4	375.2	290 mg/l	2	1500	12/30/94	DD
CATIONS						
Calcium as Ca	200.7	72 mg/l	0.1	1030	01/10/95	BH
Hardness as CaCO3	2340B	452 mg/l	-	1030	01/10/95	BH
Magnesium as Mg	200.7	66 mg/l	0.1	1030	01/10/95	BH
Potassium as K	258.1	3 mg/l	0.2	1430	12/29/94	AAH
Sodium as Na	200.7	141 mg/l	0.8	1030	01/10/95	BH
INORGANICS						
Electrical Conductivity	120.1	1300 umhos/cm	7	1500	12/29/94	HB
Oil & Grease	413.1	<1 mg/l	1	1400	01/04/95	DD
Settleable Solids	160.5	<0.1 ml/l	0.1	--	12/21/94	DD
Total Dissolved Solids	160.1	894 mg/l	6	1700	12/22/94	CC
Total Suspended Solids	160.2	3 mg/l	2	1530	12/22/94	CC
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1515	01/03/95	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1600	01/04/95	AAH
Boron as B (Dissolved)	200.7	0.1 mg/l	0.02	1345	01/03/95	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1800	01/10/95	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1515	01/03/95	BH
Iron as Fe (Dissolved)	200.7	0.08 mg/l	0.006	1345	01/03/95	BH
Iron as Fe (Total)	200.7	0.10 mg/l	0.006	1420	01/10/95	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	01/06/95	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1345	01/03/95	AAH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1420	01/10/95	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1600	01/03/95	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	01/03/95	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1345	01/03/95	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.02	1300	12/28/94	CC
Nitrite as N	353.2	<0.05 mg/l	0.005	1000	12/21/94	DD
Phosphorous Total	365.1	<0.02 mg/l	0.003	1630	01/10/95	CC
Nitrate as N	353.2	0.66 mg/l	0.004	1200	12/27/94	BH

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 150825
Sample Name: F-2/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1531
Sample Type: WATER

417

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS	**24.44 meq/l**				
Alkalinity Bicarbonate as HCO3	553 mg/l	-	1400	05/03/94	DD
Alkalinity Carbonate as CO3	11 mg/l	-	1400	05/03/94	DD
Alkalinity Total as CaCO3	472 mg/l	0.84	1400	05/03/94	DD
Chloride as Cl	56 mg/l	1.41	1530	05/17/94	DD
Sulfate as SO4	644 mg/l	2.29	1430	05/09/94	DD
CATIONS	**25.54 meq/l**				
Calcium as Ca	97 mg/l	0.39	1030	05/11/94	BH
Hardness as CaCO3	712 mg/l	-		05/11/94	
Magnesium as Mg	114 mg/l	0.31	1030	05/11/94	BH
Potassium as K	7 mg/l	0.18	1000	05/09/94	AH
Sodium as Na	274 mg/l	0.81	1000	05/11/94	AH
INORGANICS					
Electrical Conductivity	2280 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	<1 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	1430 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	7 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AH
Boron as B (Dissolved)	* <1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	04/29/94	BH
Copper as Cu (Dissolved)	<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	*<0.5 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	0.30 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	*<0.2 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	0.10 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	*<0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	*<0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	0.75 mg/l	0.05	1430	04/22/94	DD
Phosphorous Total	0.02 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148526
Sample Name: F-2/011394
Sample Date: 01/13/94
Collected by: GREG McDONALD
Time Sampled: 1600
Sample Type: SURFACE WATER

CM 4/7

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS					
Alkalinity Bicarbonate as	605 mg/l		1100	02/10/94	HB
Alkalinity Carbonate as C	0 mg/l		1100	02/10/94	HB
Alkalinity Total as CaCO3	496 mg/l	0.84	1100	02/10/94	HB
Chloride as Cl	44 mg/l	1.41	1400	01/26/94	HB
Sulfate as SO4	632 mg/l	2.29	1115	02/02/94	CC
CATIONS					
Calcium as Ca	94 mg/l	0.39	1600	02/04/94	BH
Hardness as CaCO3	690 mg/l		1600	02/04/94	BH
Magnesium as Mg	110 mg/l	0.31	1600	02/04/94	BH
Potassium as K	7 mg/l	0.18	1400	01/28/94	AH
Sodium as Na	260 mg/l	0.81	1600	02/04/94	BH
INORGANICS					
Oil & Grease	<1 mg/l	0.9	1030	01/27/94	TK
Settleable Solids	<0.1 ml/l	0.1	0940	01/19/94	CC
Total Dissolved Solids	1390 mg/l	11.7	1720	01/20/94	HB
Total Suspended Solids	<5 mg/l	3.5	1300	01/21/94	HB
METALS					
Aluminum as Al (Dissolved	* <0.5 mg/l	0.023	1400	02/03/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	0930	01/20/94	AH
Boron as B (Dissolved)	* <0.5 mg/l	0.045	1100	02/03/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1100	01/27/94	BH
Copper as Cu (Dissolved)	* <0.10 mg/l	0.005	1100	02/03/94	BH
Iron as Fe (Dissolved)	* <0.25 mg/l	0.008	1100	02/03/94	BH
Iron as Fe (Total)	0.30 mg/l	0.008	1630	02/03/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1300	01/20/94	AH
Manganese as Mn (Dissolve	* <0.10 mg/l	0.003	1100	02/03/94	BH
Manganese as Mn (Total)	0.10 mg/l	0.003	1630	02/03/94	BH
Molybdenum as Mo (Dissolv	* <0.25 mg/l	0.023	1100	02/03/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0019	1130	01/21/94	AH
Zinc as Zn (Dissolved)	* <0.10 mg/l	0.008	1100	02/03/94	BH

* Higher detection limit is due to interference present in the sample.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148526
Sample Name: F-2/011394
Sample Date: 01/13/94
Collected by: GREG McDONALD
Time Sampled: 1600
Sample Type: SURFACE WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1515	01/24/94	CC
Nitrite as N	<0.05 mg/l	0.005	1200	01/20/94	DD
Phosphorous Total	<0.02 mg/l	0.002	1600	02/09/94	CC
Nitrate as N	0.97 mg/l	0.005	1015	01/28/94	CC

NB 7-29-98

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

(FROM MINE'S SPREADSHEET)
FIELD DATA:
Temp: 11.2 C
pH: 8.13 SU
SC: 4910 umhos/cm
DO: 7.5 mg/L
FLOW: 22 GPM

Group #: 23282
Lab #: 98-U004451
Project: BASELINE
Sample Desc: CRB

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 9:10
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Bicarbonate as HCO3, mg/L	390	1	6/11/98	9:00	SM 2320B	TSM
Carbonate as CO3, mg/L	< 1	1	6/11/98	9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	320	1	6/11/98	9:00	SM 2320B	TSM
Chloride (D), mg/L	148	1.67	6/12/98	7:45	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	2,150	0.2	6/16/98	8:39	CAL	RIF
Hardness Index: Very Hard Water						
Settleable Solids, mL/L/hr	< 0.1	0.1	6/ 5/98	12:00	EPA 160.5	LPS
Sulfate, mg/L	2,540	500	6/ 9/98	10:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,910	10	6/10/98	11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	2	1.2	6/ 5/98	12:00	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	424	0.2	6/10/98	11:31	EPA 200.7	EG
Calcium (D), as Ca, mg/L	425	0.2	6/10/98	11:31	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.04	0.02	6/10/98	11:31	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	6/10/98	11:31	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	266	0.2	6/10/98	11:31	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	265	0.2	6/10/98	11:31	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	6/10/98	11:31	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	6/10/98	11:31	EPA 200.7	EG
Potassium (D), as K, mg/L	21.3	0.2	6/10/98	11:31	EPA 200.7	EG
Sodium (D), as Na, mg/L	419	0.2	6/10/98	11:31	EPA 200.7	EG

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

7-29-98

Date: 6/16/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 23282
Lab #: 98-U004451
Project: BASELINE
Sample Desc: CRB

Date Sampled: 6/ 4/98
Date Submitted: 6/ 5/98

Time Sampled: 9:10
Time Received: 10:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MRL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Oil & Grease, mg/L	< 5	5	6/ 9/98 10:00	SM18 5520-B	KRF
Cation Sum, meq/L	61.79				
Anion Sum, meq/L	63.45				
% Cation/Anion Difference,	1.33				
Receiving Temperature, C	10.2		6/ 5/98 10:25		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

B 4-22-98

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001838
Project: BASLINE MONITORING
Sample Desc: CRB

Date Sampled: 3/16/98
Date Submitted: 3/17/98

Time Sampled: 11:30
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	399	1	3/19/98 13:00	SM 2320B	TSM
Carbonate as CO3, mg/L	< 1	1	3/19/98 13:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	327	1	3/19/98 13:00	SM 2320B	TSM
Chloride (D), mg/L	143	1.7	3/19/98 11:30	EPA 325.3	TSM
Hardness, EDTA Titration, mg/L	2,250	125	3/19/98 12:00	EPA 130.2	TSM
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/17/98 14:30	EPA 160.5	RCG
Sulfate, mg/L	2,740	500	3/20/98 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,720	10	3/19/98 13:15	EPA 160.1	LPS
Total Suspended Solids, mg/L	15	1	3/17/98 14:30	EPA 160.2	RCG
Calcium (D), as Ca, mg/L	417	0.3	3/25/98 11:08	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.12	0.02	3/30/98 14:58	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	3/25/98 11:08	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	261	0.2	3/25/98 11:08	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.01	0.01	3/30/98 14:58	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/25/98 11:08	EPA 200.7	EG
Potassium (D), as K, mg/L	19.8	0.2	3/25/98 11:08	EPA 200.7	EG
Sodium (D), as Na, mg/L	405	2	3/25/98 11:08	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/24/98 10:00	SM18 5520-B	KRF
Cation, meq/L	60.41				

Approved By: R Jun

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 4/10/98

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 21769
Lab #: 98-U001838
Project: BASLINE MONITORING
Sample Desc: CRB

Date Sampled: 3/16/98
Date Submitted: 3/17/98

Time Sampled: 11:30
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Anion, meq/L	67.62					
% Difference,	5.63					
Receiving Temperature, C	4.1		3/17/98	9:50		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

DEC 1 1 1997

NB 3-2-98

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012988
Project: BASE LINE
Sample Desc: CRB

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 12:50
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	390	1	12/ 2/97 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	12/ 2/97 12:00	SM 2320B	TM
Alkalinity, Total (CaCO3), mg/L	320	1	12/ 2/97 12:00	SM 2320B	TM
Chloride (D), mg/L	156	1.7	12/ 1/97 12:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,340	125	12/ 1/97 14:00	EPA 130.2	TM
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	11/21/97 11:45	EPA 160.5	LS
Sulfate, mg/L	2,780	500	12/ 5/97 10:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,020	10	11/28/97 12:45	EPA 160.1	LS
Total Suspended Solids, mg/L	4	1	11/21/97 11:45	EPA 160.2	LS
Calcium (T), as Ca, mg/L	476	0.1	11/25/97 13:04	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.02	0.02	11/25/97 13:04	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.02	0.02	11/25/97 13:04	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	286	0.1	11/25/97 13:04	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	11/25/97 13:04	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.01	0.01	11/25/97 13:04	EPA 200.7	LH
Potassium (D), as K, mg/L	23.5	0.1	11/25/97 13:04	EPA 200.7	LH
Sodium (D), as Na, mg/L	459	0.1	11/25/97 13:04	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	11/25/97 14:30	SM18 5520-B	KRF
Cation,	67.86		12/ 9/97		RH

Approved By: _____

{generic.rpt}

6122 SOUTH STATE ST
SALT LAKE CITY, UTAH 84107-6615

CHEMTECH-FORD

3-2-98

Date: 12/ 9/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 19782
Lab #: 97-U012988
Project: BASE LINE
Sample Desc: CRB

Date Sampled: 11/20/97
Date Submitted: 11/21/97

Time Sampled: 12:50
Time Received: 9:55

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Anion,	68.67		12/ 9/97		RH
% Difference,	0.60				
Receiving Temperature, C	3.0		11/21/97 9:55		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

CHEMTECH-FORD ANALYTICAL LABORATORIES

RECEIVED JUN 19 1997

Date: 6/17/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

FIELD DATA FROM MULTI-SITE PG
TEMP : 14.1°C
pH : 7.68
SC : 5300 umhos/L
DO : 8.1 mg/L
FLOW : 16 gpm

OC CW 7/21
MB 7-18-97

Group #: 15491
Lab #: 97-U005270
Project: BASELINE SAMPLING
Sample Desc: CRB

Date Sampled: 5/14/97
Date Submitted: 5/15/97

Time Sampled: 10:40
Time Received: 9:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	397	1	5/19/97 7:30	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	5/19/97 7:30	SM 2320B	TM
Alkalinity, Total (CaCO3), mg/L	325	1	5/19/97 7:30	SM 2320B	TM
Chloride (D), mg/L	167	1	5/15/97 16:30	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,470	50	5/19/97 12:00	EPA 130.2	TM
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/15/97 14:50	EPA 160.5	LS
Sulfate, mg/L	2,660	500	5/20/97 9:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,040	10	5/19/97 13:45	EPA 160.1	LS
Total Suspended Solids, mg/L	< 2.5	2.5	5/15/97 15:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	449	0.4	5/19/97 14:46	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.02	0.02	5/19/97 10:28	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.02	0.02	5/16/97 14:46	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	283	0.1	5/19/97 12:19	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	5/19/97 10:28	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.02	0.01	5/16/97 14:46	EPA 200.7	LH
Potassium (D), as K, mg/L	24.5	0.1	5/19/97 12:19	EPA 200.7	LH
Sodium (D), as Na, mg/L	481	0.4	5/19/97 12:19	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	5/29/97 15:00	SM18 5520-B	BJP
Cation, meq/L	67.24				

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIE

Date: 6/17/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 15491
Lab #: 97-U005270
Project: BASELINE SAMPLING
Sample Desc: CRB

Date Sampled: 5/14/97
Date Submitted: 5/15/97

Time Sampled: 10:40
Time Received: 9:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Anion, meq/L	66.60					
% Difference,	-0.48					
Receiving Temperature, C	5.5		5/15/97	9:30		RCG

NOTE: Sample submitted on ice.

Approved By: _____

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING **V-NOTCH WEIR @ BOUNDARY (CRB)**

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (~~umhos~~ mS)	DO (mg/l)
5/19/94	1650	J.C	PTLY CLDY 65°	.28	48	15.55	8.1	5.16	7.64
5/27/94	1400	J.C.	PTLY CLDY 70°	.29	52	16.77	7.8	5.07	6.87
6/9/94	1120	J.C.	CLEAR 60°	.28	48	15.50	7.8	5.30	8.0
6/16/94	1307	J.C.	CLEAR 75°	.26	40	19.62	7.8	5.28	7.61
6/23/94	1645	J.C.	CLEAR 80°	.25	36	22.75	7.8	5.29	6.4
6/30/94	0930	J.C.	CLEAR 70°	.26	40	15.90	7.9	5.4	7.3
7/8/94	1140	J.C.	CLEAR 78°	.26	40	17.6	8.06	5.4	7.4
7/14/94	1320	J.C.	CLEAR 85°	.24	32	19.75	7.98	5.4	7.02
7/21/94	1520	J.C.	CLEAR 90°	.22	26	22.6	7.9	5.4	~~7.9~~ 8.6
7/28/94	1020	J.C.	CLEAR 80°	.28	48	17.5	8.1	5.5	7.3
8/4/94	1040	J.C.	CLEAR 80°	.25	36	18.3	8.2	5.5	6.6
8/11/94	1110	J.C.	CLEAR 80°	.28	48	18.5	8.2	5.6	6.8
8/19/94	1035	J.C.	CLOUDY 70°	.25	36	17.2	8.2	5.6	6.9
8/26/94	0945	J.C.	CLEAR 75°	.23	29	16.1	8.2	5.6	6.9
8/31/94	1700	J.C.	CLEAR 80°	.22	26	20.3	8.2	5.6	7.4
9/9/94	1115	J.C	CLEAR 75°	.28	48	17.6	8.3	5.5	7.2
9/16/94	1100	J.C	CLEAR 70°	.26	40	14.2	8.4	5.5	7.8
9/20/94	1630	J. Martin	PtCldy 65°	.26	40	15.95	8.34	5.47	7.60
9/29/94	1045	J.C.	CLOUDY/RAIN 65°	.26	40	15.00	8.4	5.5	7.5
10/6/94	1315	J.C.	PTLY CLDY 55°	.26	40	12.7	8.5	5.5	8.5
10/13/94	1110	J.C.	CLEAR 50°	.25	36	13.0	8.5	5.5	7.7
10/21/94	1340	J.C.	CLEAR 50°	.26	40	12.6	8.6	5.4	8.3
10/28/94	1050	J.C.	CLEAR 20°	.26	40	9.9	8.6	5.5	8.4
11/4/94	1030	J.C	CLDY 45°	.26	40	9.1 ~~9.0~~	8.5	5.4	8.1
11/9/94	1515	J.C	CLEAR 50°	.26	40	9.0	8.7	5.5	8.6
11/17/94	1500	J.C	CLDY 40°	.24	32	9.1	8.6	5.6	8.1

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ BOUNDARY (CRB)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1545	J.C.	CLEAR 32°	.23	29	7.0	8.8	5.2	7.3
12/9/94	1445	J.C.	CLEAR 25°	.24	32	5.4	8.8	5.4	7.7
12/15/94	1345	J.C.	PTLY CLDY 25°	.26	40	5.9	8.9	5.4	7.5
12/22/94	1445	J.C.	PTLY CLDY 35°	.26	40	7.0	8.9	5.3	7.6
1/6/95	1100	J.C.	CLEAR 25°	.26 .22	≈40	3.7	9.1	5.3	9.0
1/12/95	1300	J.C.	PTLY CLDY 30°±	.26	40	5.2	8.9	5.4	8.0
1-21-95	1515	J.C	CLOUDY 35°±	.26	40	6.0	9.1	5.3	8.3
1-27-95	1445	J.C.	CLDY 32°±	.26	40	5.8	9.0	5.4	8.0
2-1-95	1345	J.C.	CLEAR 40°±	.26	40	5.2	9.1	5.2	7.1
2-9-95	1345	J.C.	CLEAR 40°±	.27	43	5.7	8.9	5.4	7.2
2-23-95	1410	J.C	PTLY CLDY 40°±	.26	40	5.8	9.0	5.4	8.0
2-28-95	1145	J.C	PTLY CLDY 45°±	.26	40	5.4	8.8	5.1	7.8
3-1-95	1500	J.C	PTLY CLDY 45°±	.26	40	5.9	8.7	5.3	8.1
3-9-95	1400	J.C.	PTLY CLDY 40°±	.26	40	6.0	8.8	5.2	7.8
3-22-95	1210	J.C.	PTLY CLDY 50°±	.23	29	7.1	8.9	5.0	8.0
3-30-95	1210	J.C.	PTLY CLDY 50°±	.23	29	7.0	8.2	5.3	8.1
4-5-95	1110	J.C.	CLEAR 45°±	.23	29	7.9	8.6	5.1	7.6
4-13-95	1445	J.C.	CLEAR 50°±	.23	29	8.4	8.6	5.4	7.7
4-20-95	1200	J.C.	RAIN 40°±	.24	32	8.1	8.5	5.2	7.5
4-27-95	1145	J.C.	OVERCAST 50°±	.24	32	8.5	8.7	5.3	7.8

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: CRB (boundary) DOGM

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (~~F~~ C)	pH	SC (umhos)	DO Meter ~~No.~~	Collection Point	Sample Taken (yes/no)
6/30/93	1355	GM CW	Sunny Hot	yes	Much less FE on & cooler	~30	Vis		26	7.60	4200	8.1	Standard Point	yes
7/27	1626	GM	Sunny Hot	yes	"	~30	Vis		21	7.87	4600	5.0	"	NO
8/26/93	1159	GM	Overcast	yes	" "	~60	Vis.		18.5	6.50	2450	5.4	"	NO
9/2	1643	GM CW	SW	yes	~	~40	Vis		20	7.92	4150	4.9	"	NO
10/26	1400	MH	Windy	yes	"	40	Vis		8.3	7.50	3400	6.0	"	NO
11/16	1430	MH	Cold	yes	~	40?	Vis		7.9	7.10	3300	5.5	"	NO
12/9	1627	GM	Cold	yes	Clear water	40?	Vis		5.9	7.94	3900	5.4	"	NO
1/19/94	1103	GM	Clear Cold	yes	Clear	200est	Vis		5.0	8.17	3100	6.0	"	yes
2/28	1407	GM	RC, Cool	yes	Less flow	120	Vis		15.6	7.91	4370	6.8	"	NO
3/31/94	12:27	CW/TMM	Warm, Sunny	Yes		—	—		14.6	7.61	3500	6.5	"	NO
4/19	1430	CW/GM	" "	yes	Weir in place	38	W		19.3	7.96	4890	7.4	Weir	yes
5/31/94	1227	RC	cool, rain	yes	clear, flow is spread out	20	vis		14.1	7.73	4599	9.0	"	NO

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: CRB - Boundary

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1300	RB6/REG	clear	yes	weir	40.0	6.6	7.92	5214	14.9	yes	
1/24/95	1450	RB6/GM	slight snow	yes	weir	32.0	3.9	8.05	8704.7	8.9	no	SC meter did not read line; possible data error
2/23/95	1350	RB6/GM	sunny	yes	weir	32.0	13.0	8.10	4962.4	8.0	no	

Flow Measurement Methods: W=Weir, VE=Visual Estimate, CC=Calibrated Container, DF=Debris Flow Rate Estimate

Carbon County, Utah
UPDES Permit Number UT0024759

OUTFALL NUMBER: CRB

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Field Parameters: Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/L	Sample Taken	Observations (color,sheen,ordor,etc.)
10-20-95	11:18	R. MILLER	COOL CLEAR	YES	30	8.2	8.2	8.15	5280	3.6	YES	
11-21-95	11:38	R. MILLER	CLEAR	YES	25		8.58	8.06	5291	6.2	YES	

Date: 4/ 1/97

RECEIVED APR - 7 1997

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

QC CNW 6119

MB 4-18-97

Group #: 13638
Lab #: 97-U001842
Project: BASELINE
Sample Desc: CRB Coarse Refuse Seep @ Boundary

Date Sampled: 2/19/97
Date Submitted: 2/20/97

Time Sampled: 9:10
Time Received: 9:45

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	415	1	3/ 4/97 10:10	SM 2320B	AJP
Carbonate as CO3, mg/L	< 1	1	3/ 4/97 10:10	SM 2320B	AJP
Alkalinity, Total, mg/L	340	1	3/ 4/97 10:10	SM 2320B	AJP
Chloride (D), mg/L	168	2	2/25/97 11:22	EPA 325.3	AJP
Hardness, EDTA Titration, mg/L	2,400	25	3/ 7/97 11:37	EPA 130.2	AJP
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	2/20/97 10:45	EPA 160.5	LS
Sulfate, mg/L	2,880	500	3/10/97 12:50	EPA 375.4	TH
Total Dissolved Solids, mg/L	4,950	5	2/24/97 1:45	EPA 160.1	LS
Total Suspended Solids, mg/L	3	2.5	2/20/97 11:10	EPA 160.2	LS
Calcium (D), as Ca, mg/L	449	0.1	3/ 6/97 15:58	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.02	0.02	2/21/97 10:01	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.02	0.02	2/25/97 11:08	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	297	0.1	3/ 6/97 15:58	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	2/21/97 10:01	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.01	0.01	2/25/97 11:08	EPA 200.7	LH
Potassium (D), as K, mg/L	24	2	3/10/97 15:58	EPA 200.7	LH
Sodium (D), as Na, mg/L	481	0.1	3/ 6/97 15:58	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	3/ 3/97 13:30	SM18 5520-B	BJP
Cation, meq/L	68.4				
Anion, meq/L	71.5				

Approved By: _____

(generic.rpt)

Field data submitted on separate page.

Temp: 8.6 °C
pH: 8.32
sp Con: 5360
DO: 8.4 mg/L
Flow: 22 gpm

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 4/ 1/97

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

RECEIVED
APR - 7 1997

Group #: 13638
Lab #: 97-U001842
Project: BASELINE
Sample Desc: CRB

Date Sampled: 2/19/97
Date Submitted: 2/20/97

Time Sampled: 9:10
Time Received: 9:45

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Difference,	2.22				
Receiving Temperature, C	2.8		2/20/97 9:45		RCG

NOTE: Sample submitted on ice.

Approved By: _____

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7373 FAX

Date: 12/16/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 11702
Lab #: 96-U016784
Sample Desc: CRB

CON 3/13

Date Sampled: 11/21/96
Date Submitted: 11/22/96

Time Sampled: 10:35
Time Received: 10:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	441	1	11/25/96 11:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	11/25/96 11:00	SM 2320B	TM
Alkalinity, Total, mg/L	362	1	11/25/96 11:00	SM 2320B	TM
Chloride (D), mg/L	183	3.3	11/25/96 9:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,610	50	11/25/96 8:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	11/22/96 12:00	EPA 160.5	LS
Sulfate, mg/L	2,530	500	11/26/96 10:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	4,860	6	11/25/96	EPA 160.1	JBR
Total Suspended Solids, mg/L	4	2.5	11/22/96 14:00	EPA 160.2	LS
Calcium (D), as Ca, mg/L	486	0.1	12/ 3/96 14:43	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.12	0.02	11/26/96 11:12	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.02	0.02	12/ 3/96 14:43	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	302	0.1	12/ 3/96 14:43	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.12	0.01	11/26/96 11:12	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.08	0.01	12/ 3/96 14:43	EPA 200.7	LH
Potassium (D), as K, mg/L	27	2	12/ 3/96 14:43	EPA 200.7	LH
Sodium (D), as Na, mg/L	496	0.1	12/ 3/96 14:43	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	12/ 2/96 17:00	SM18 5520-B	BJP
Cation, meq/L	71.4				
Anion, meq/L	65.1				
% Difference,	-4.62				
Receiving Temperature, C	2.8		11/22/96 10:30		RCG

Approved By: _____

Date: 12/16/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 11702
Lab #: 96-U016784
Sample Desc: CRB

Date Sampled: 11/21/96
Date Submitted: 11/22/96

Time Sampled: 10:35
Time Received: 10:30

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample submitted on ice.

Approved By: _____

1250 LAMOILLE HWY
ELKO, NEVADA 89801
702 738 7444 PHONE
702 738 7454 FAX

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6505
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 10/ 8/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 10516
Lab #: 96-U013618
Project: BASELINE
Sample Desc: CRB

CM 417

Date Sampled: 9/ 9/96
Date Submitted: 9/11/96

Time Sampled: 10:50
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	421	1	9/17/96 13:30	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	9/17/96 13:30	SM 2320B	TM
Alkalinity, Total, mg/L	346	1	9/17/96 13:30	SM 2320B	TM
Chloride (D), mg/L	195	1	9/13/96 10:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,660	50	9/14/96 10:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	9/11/96 11:45	EPA 160.5	LS
Sulfate, mg/L	3,190	1000	9/18/96 13:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,400	10	9/12/96 15:30	EPA 160.1	KA
Total Suspended Solids, mg/L	< 2.5	2.5	9/11/96 11:45	EPA 160.2	LS
Calcium (D), as Ca, mg/L	547	0.1	9/26/96 10:41	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.02	0.02	10/ 1/96 10:15	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.02	0.02	9/26/96 10:41	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	360	0.1	9/26/96 10:41	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	10/ 1/96 10:15	EPA 200.7	LH
Manganese (D), as Mn, mg/L	< 0.01	0.01	9/26/96 10:41	EPA 200.7	LH
Potassium (D), as K, mg/L	32	2	9/26/96 10:41	EPA 200.7	LH
Sodium (D), as Na, mg/L	554	0.1	9/26/96 10:41	EPA 200.7	LH
Oil & Grease, mg/L	< 6	6	9/16/96 14:00	SM18 5520-B	BJP
Cation, meq/L	81.8				
Anion, meq/L	78.8				
% Difference,	-1.88				

Approved By: R Zu

1250 LAMOILLE HWY (generic.rpt)
ELKO, NEVADA 89801
702 738 0111 PHONE
702 753 7255 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 8483
Lab #: 96-U006836
Project: SCA-DOGM BASELINE
Sample Desc: CRB

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 10:20
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	411	1	5/31/96 5:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	5/31/96 5:00	SM 2320B	TM
Alkalinity, Total, mg/L	337	1	5/31/96 5:00	SM 2320B	TM
Chloride, mg/L	196	3	5/25/96 9:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,540	50	5/29/96 10:00	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.1	0.1	5/23/96 19:30	EPA 160.5	LS
Sulfate, mg/L	2,670	1000	5/30/96 10:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,080	10	5/31/96 19:05	EPA 160.1	RAL
Total Suspended Solids, mg/L	< 2.5	2.5	5/23/96 19:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	472	0.1	6/ 4/96 9:36	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.07	0.01	6/ 4/96 9:37	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.01	0.01	6/ 4/96 9:36	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	324	0.1	6/ 4/96 9:36	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.04	0.01	6/ 4/96 9:37	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.04	0.01	6/ 4/96 9:36	EPA 200.7	LH
Potassium (D), as K, mg/L	33.0	0.1	6/ 4/96 9:36	EPA 200.7	LH
Sodium (D), as Na, mg/L	515	0.1	6/ 4/96 9:36	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	5/31/96 11:05	SM18 5520-B	RAL
Cation, meq/L	73.5				
Anion, meq/L	67.9				
% Difference,	-3.97				

Approved By: _____

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 6/14/96

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

RECEIVED 7 1996

Group #: 8483
Lab #: 96-U006836
Project: SCA-DOGM BASELINE
Sample Desc: CRB

Date Sampled: 5/22/96
Date Submitted: 5/23/96

Time Sampled: 10:20
Time Received: 9:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	7	0	5/23/96 9:00		RCG

NOTE: Sample submitted on ice.

Approved By: [signature]

CHEMTECH-FORD

Date: 3/26/96

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

CM 417

Group #: 7157
Lab #: 96-U002765
Project: DOGM
Sample Desc: CRB

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 11:50
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	391	1	3/14/96 11:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	3/14/96 11:00	SM 2320B	TM
Alkalinity, Total, mg/L	321	1	3/14/96 11:00	SM 2320B	TM
Chloride, mg/L	212	1	3/15/96 9:30	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,510	50	3/15/96 11:30	EPA 130.2	TM
Settleable Solids, ml/L/hr	< 0.1	0.1	3/13/96 13:20	EPA 160.5	LS
Sulfate, mg/L	2,920	500	3/19/96 11:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,030	5	3/14/96 2:45	EPA 160.1	MO
Total Suspended Solids, mg/L	4	2.5	3/13/96 13:30	EPA 160.2	LS
Calcium (D), as Ca, mg/L	425	0.1	3/18/96 13:49	EPA 200.7	MA
Iron (T), as Fe, mg/L	0.06	0.01	3/18/96 13:46	EPA 200.7	MA
Iron (D), as Fe, mg/L	< 0.01	0.01	3/18/96 13:49	EPA 200.7	MA
Magnesium (D), as Mg, mg/L	285	0.1	3/18/96 13:49	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.04	0.01	3/18/96 13:46	EPA 200.7	MA
Manganese (D), as Mn, mg/L	0.05	0.01	3/18/96 13:49	EPA 200.7	MA
Potassium (D), as K, mg/L	224	0.1	3/18/96 13:49	EPA 200.7	MA
Sodium (D), as Na, mg/L	440	0.1	3/18/96 13:49	EPA 200.7	MA
Oil & Grease, mg/L	< 5	5	3/25/96 8:00	EPA 413.1	EG
Cation,	69.5				
Anion,	73.2				
% Difference,	2.60				

Approved By: _____

CHEMTECH-FORD

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnside, UT 84539

Date: 3/26/96

Group #: 7157
Lab #: 96-U002765
Project: DOGM
Sample Desc: CRB

Date Sampled: 3/12/96
Date Submitted: 3/13/96

Time Sampled: 11:50
Time Received: 9:40

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	4	0	3/13/96 9:40		RCG

NOTE: Sample submitted on ice.
The spike for K recovered 89.8%. The limit is 90%
Instrument performance check standards were run on
both sides of the spike they passed 95-105%
recovery.

Approved By: _____

(general rpt)

CHEMTECH-FORD

Date: 12/15/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

COPY

Group #: 5484
Lab #: 95-U037915
Sample Desc: CRB

Date Sampled:
Date Submitted: 11/22/95

Time Sampled:
Time Received: 14:06

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	423	1	11/30/95 12:30	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	11/30/95 12:30	SM 2320B	TM
Alkalinity, Total, mg/L	347	1	11/30/95 12:30	SM 2320B	TM
Chloride, mg/L	250	1	12/ 5/95 11:00	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,460	25	12/ 8/95 8:30	EPA 130.2	TM
Settleable Solids, ml/L/hr	< 0.2	0.2	11/22/95	EPA 160.5	RG
Sulfate, mg/L	2,980	14	12/ 4/95 11:00	EPA 375.4	TM
Total Dissolved Solids, mg/L	4,870	5	11/30/95 14:00	EPA 160.1	MA
Total Suspended Solids, mg/L	15.0	2.5	11/30/95 17:00	EPA 160.2	MA
Calcium (D), as Ca,	521	0.2	12/ 4/95 0:57	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.08	0.08	12/ 4/95 0:55	EPA 200.7	LH
Iron (D), as Fe, mg/L	< 0.08	0.08	12/ 4/95 0:57	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	349	0.2	12/ 4/95 0:57	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.10	0.02	12/ 4/95 0:55	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.03	0.02	12/ 4/95 0:57	EPA 200.7	LH
Potassium (D), as K, mg/L	27.9	0.2	12/ 4/95 0:57	EPA 200.7	LH
Sodium (D), as Na, mg/L	523	0.4	12/ 4/95 0:57	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	11/30/95 16:00	EPA 413.1	EG
Cation,	78.18				
Anion,	76.03				
% Difference,	1.40				

Approved By: _____

(generic.rpt)

Date: 11/ 7/95

To: Sunnyside Cogeneration
P.O. Box 10
East Carbon, UT 84520

CM 417

Group #: 4845
Lab #: 95-U035583
Sample Desc: CRB
Date Sampled: 10/20/95
Date Submitted: 10/21/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO3, mg/L	417	1	10/30/95 12:00	SM 2320B	TM
Carbonate as CO3, mg/L	< 1	1	10/30/95 12:00	SM 2320B	TM
Alkalinity, Total, mg/L	342	1	10/30/95 12:00	SM 2320B	TM
Chloride, mg/L	250	6	10/26/95 13:20	EPA 325.3	TM
Hardness, EDTA Titration, mg/L	2,570	100	10/24/95 13:30	EPA 130.2	TM
Settleable Solids, mL/L/hr	< 0.2	0.2	10/21/95 12:00	EPA 160.5	MA
Sulfate, mg/L	3,040	25	10/26/95 12:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	5,170	10	10/25/95 12:00	EPA 160.1	MA
Total Suspended Solids, mg/L	< 2.5	2.5	10/25/95 17:00	EPA 160.2	MA
Calcium (T), as Ca, mg/L	547	0.2	10/30/95 10:01	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.14	0.04	10/30/95 10:01	EPA 200.7	LH
Iron (D), as Fe, mg/L	0.05	0.04	11/ 1/95 16:29	EPA 200.7	LH
Magnesium (D), as Mg, mg/L	314	0.1	11/ 1/95 16:29	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.18	0.01	10/30/95 10:01	EPA 200.7	LH
Manganese (D), as Mn, mg/L	0.10	0.01	11/ 1/95 16:29	EPA 200.7	LH
Potassium (D), as K, mg/L	24.7	0.1	11/ 1/95 16:29	EPA 200.7	LH
Sodium (D), as Na, mg/L	462	0.2	11/ 1/95 16:29	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	10/31/95 11:55	EPA 413.1	RH
Cation, meq/L	73.87				
Anion, meq/L	77.18				
% Difference, %	2.20				

Approved By: R Dr

(generic.rpt)

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 32873
MSAI Group: 8110
Date Reported: 05/11/95

Discard Date: 06/10/95
Date Submitted: 04/28/95
Date Sampled: 04/27/95
Collected by: JC
Purchase Order:
Project No.:

CM 4/7

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.8	mg/l	0.1
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	455	mg/L	0.8
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.25
0[illegible]7D	Magnesium by ICP, Dissolved Method: SW-846 6010A	305	mg/L	0.2
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.04	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	23.1	mg/L	0.8
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	403	mg/l	4

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

RLarsen

Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: ~~32870~~ w/# 32873
MSAI Group: 8110
Date Reported: 05/11/95

Discard Date: 06/10/95
Date Submitted: 04/28/95
Date Sampled: 04/27/95
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.8	mg/l	0.1
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.25
7258	Manganese by ICP Method: SW-846 6010A	0.042	mg/l	0.015
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	312	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved (TDS) Method: EPA 160.1	5,120	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,540	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity, (to pH 3.7 and 8.3) Method: EPA 305.1	10.2	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,820	mg/l	2

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 30449
MSAI Group: 7492
Date Reported: 03/09/95

Discard Date: 04/08/95
Date Submitted: 03/02/95
Date Sampled: 02/28/95
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.9	mg/l	0.3
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	511	mg/L	1.0
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	342	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.11	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	29.5	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	427	mg/l	4

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: ~~30446~~ lab # 30449
MSAI Group: 7492
Date Reported: 03/09/95

Discard Date: 04/08/95
Date Submitted: 03/02/95
Date Sampled: 02/28/95
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.9	mg/l	0.3
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7258	Manganese by ICP Method: SW-846 6010A	0.11	mg/l	0.02
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	330	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	4,780	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,580	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	5.0	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,940	mg/l	2

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 158105
Sample Name: CRB/121994
Sample Date: 12/19/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS*						
Alkalinity Bicarbonate as HCO3	310.1	440 mg/l	-	1330	12/22/94	BH
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1330	12/22/94	BH
Alkalinity Total as CaCO3	310.1	361 mg/l	0.4	1330	12/22/94	BH
Chloride as Cl	325.3	197 mg/l	0.7	--	01/13/95	DD
Sulfate as SO4	375.2	2800 mg/l	2	1500	12/30/94	DD
CATIONS*						
Calcium as Ca	200.7	570 mg/l	0.1	1130	01/12/95	BH
Hardness as CaCO3	2340B	2780 mg/l	-	1130	01/12/95	BH
Magnesium as Mg	200.7	330 mg/l	0.1	1030	01/10/95	BH
Potassium as K	258.1	31 mg/l	0.2	1430	12/29/94	AAH
Sodium as Na	200.7	507 mg/l	0.8	1030	01/10/95	BH
INORGANICS						
Electrical Conductivity	120.1	5190 umhos/cm	7	1500	12/29/94	HB
Oil & Grease	413.1	<1 mg/l	1	1400	01/04/95	DD
Settleable Solids	160.5	<0.1 ml/l	0.1	-	12/21/94	DD
Total Dissolved Solids	160.1	5070 mg/l	6	1700	12/22/94	CC
Total Suspended Solids	160.2	<1 mg/l	2	1530	12/22/94	CC
METALS						
Aluminum as Al (Dissolved)	200.7	0.3 mg/l	0.02	1515	01/03/95	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1600	01/04/95	AAH
Boron as B (Dissolved)	200.7	0.9 mg/l	0.02	1345	01/03/95	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1800	01/10/95	AAH
Copper as Cu (Dissolved)	200.7	<0.06 mg/l	0.004	1515	01/03/95	BH
Iron as Fe (Dissolved)	200.7	<0.15 mg/l	0.006	1345	01/03/95	BH
Iron as Fe (Total)	200.7	0.18 mg/l	0.006	1420	01/10/95	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	01/06/95	AAH
Manganese as Mn (Dissolved)	200.7	0.12 mg/l	0.001	1345	01/03/95	BH
Manganese as Mn (Total)	200.7	0.15 mg/l	0.001	1420	01/10/95	AAH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1600	01/03/95	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	01/03/95	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1345	01/03/95	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	0.07 mg/l	0.02	1300	12/28/94	CC
Nitrite as N	353.2	<0.05 mg/l	0.005	1000	12/21/94	DD
Phosphorous Total	365.1	<0.02 mg/l	0.003	1630	01/10/95	CC
Nitrate as N	353.2	0.70 mg/l	0.004	1200	12/27/94	BH

* The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 27429
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.8	mg/l	0.3
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	476	mg/L	1.0
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	311	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.25	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	27.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	475	mg/l	5

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRB
Matrix: Waste Water

CM 4/7

MSAI Sample: ~~27426~~ lab # 27429
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.8	mg/l	0.3
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7258	Manganese by ICP Method: SW-846 6010A	0.24	mg/l	0.02
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	342	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,200	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,560	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	12.2	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	643	mg/l	2

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRB dissolved
Matrix: Waste Water

MSAI Sample: 22109
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.86	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	431	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.13	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	288	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	26.7	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	415	mg/l	1

An 'ytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: ~~22106~~ lab # 22109
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.90	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	452	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	303	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	ND	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	28.0	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	440	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

Page 2

MSAI Sample: ~~22106~~ lab # 22109
MSAI Group: 5410

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	306	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,190	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,610	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 2	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	8	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,140	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 150823
Sample Name: CRB/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1430
Sample Type: WATER

4/1

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS**	**64.86 meq/l**				
Alkalinity Bicarbonate as HCO3	380 mg/l	-	1400	05/03/94	DD
Alkalinity Carbonate as CO3	0 mg/l	-	1400	05/03/94	DD
Alkalinity Total as CaCO3	311 mg/l	0.84	1400	05/03/94	DD
Chloride as Cl	134 mg/l	1.41	1530	04/27/94	DD
Sulfate as SO4	2630 mg/l	2.29	1400	05/23/94	DD
CATIONS**	**70.68 meq/l**				
Calcium as Ca	494 mg/l	0.39	1000	05/11/94	BH
Hardness as CaCO3	2666 mg/l	-	1000	05/11/94	BH
Magnesium as Mg	309 mg/l	0.31	1030	05/11/94	BH
Potassium as K	41 mg/l	0.18	1000	05/09/94	BH
Sodium as Na	450 mg/l	0.81	1000	04/25/94	AH
INORGANICS					
Electrical Conductivity	4960 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	2 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	4620 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	10 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AH
Boron as B (Dissolved)	* <1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	04/29/94	AH
Copper as Cu (Dissolved)	*<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	*<0.5 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	0.10 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	0.20 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	<0.10 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	* <0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	* <0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	0.73 mg/l	0.05	1330	04/22/94	DD
Phosphorous Total	0.02 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.
** The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148525
Sample Name: CRB-011494
Sample Date: 01/14/94
Collected by: GREG McDONALD
Time Sampled: 1130
Sample Type: SURFACE WATER

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PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS					
Alkalinity Bicarbonate as	369 mg/l		1100	01/22/94	HB
Alkalinity Carbonate as C	0 mg/l		1100	01/22/94	HB
Alkalinity Total as CaCO3	302 mg/l	0.84	1100	01/22/94	HB
Chloride as Cl	121 mg/l	1.41	1400	01/26/94	HB
Sulfate as SO4	2780 mg/l	2.29	1115	02/02/94	CC
CATIONS					
Calcium as Ca	490 mg/l	0.39	0930	01/21/94	BH
Hardness as CaCO3	2400 mg/l		0930	01/21/94	BH
Magnesium as Mg	290 mg/l	0.31	0930	01/21/94	BH
Potassium as K	39 mg/l	0.18	1400	01/28/94	AH
Sodium as Na	450 mg/l	0.81	0930	01/21/94	BH
INORGANICS					
Oil & Grease	<1 mg/l	0.9	1030	01/27/94	TK
Settleable Solids	<0.1 ml/l	0.1	0940	01/19/94	CC
Total Dissolved Solids	4320 mg/l	11.7	1720	01/20/94	HB
Total Suspended Solids	<5 mg/l	3.5	1300	01/21/94	HB
METALS					
Aluminum as Al (Dissolved	* <0.5 mg/l	0.023	1400	02/03/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	0930	01/20/94	AH
Boron as B (Dissolved)	0.7 mg/l	0.045	1100	02/03/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1100	01/27/94	BH
Copper as Cu (Dissolved)	* <0.10 mg/l	0.005	1100	02/03/94	BH
Iron as Fe (Dissolved)	* <0.25 mg/l	0.008	1330	02/08/94	BH
Iron as Fe (Total)	* <0.25 mg/l	0.008	1630	02/03/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1300	01/20/94	AH
Manganese as Mn (Dissolve	* <0.20 mg/l	0.003	1100	02/03/94	BH
Manganese as Mn (Total)	* <0.10 mg/l	0.003	1630	02/03/94	BH
Molybdenum as Mo (Dissolv	* <0.25 mg/l	0.023	1100	02/03/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1130	01/21/94	AH
Zinc as Zn (Dissolved)	* <0.10 mg/l	0.008	1100	02/03/94	BH

* Higher detection limit is due to interference present in the sample.

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 148525
Sample Name: CRB-011494
Sample Date: 01/14/94
Collected by: GREG McDONALD
Time Sampled: 1130
Sample Type: SURFACE WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1515	01/24/94	CC
Nitrite as N	<0.05 mg/l	0.005	1200	01/20/94	DD
Phosphorous Total	<0.02 mg/l	0.002	1600	02/09/94	CC
Nitrate as N	1.33 mg/l	0.005	1015	01/28/94	CC

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Project Name: Sunnyside Cogen. Groundwater
5-137.2-91

June 17, 1993

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Laboratory No.: 141071
Sample Name: CRB/052193
Sample Date: 05/21/93
Collected by: GREG McDONALD
Time Sampled: 1338
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD DETECTION LIMIT	DATE OF ANALYSIS	ANALYST	TIME OF ANALYSIS
ANIONS:						
Alkalinity Bicarbonate as HCO_3	490	mg/l	--	05/26/93	BH	1630
Alkalinity Carbonate as CO_3	17	mg/l	--	05/26/93	BH	1630
Alkalinity Total as $CaCO_3$	430	mg/l	0.84	05/26/93	BH	1630
Chloride as Cl	65	mg/l	0.24	05/27/93	CC	1230
Sulfate as SO_4	686	mg/l	1.83	06/02/93	CC	1500
CATIONS:						
Calcium as Ca	31	mg/l	0.39	06/02/93	NH	1040
Hardness as $CaCO_3$	185	mg/l	--	06/02/93	NH	1040
Magnesium as Mg	26	mg/l	0.31	06/02/93	NH	1040
Potassium as K	14	mg/l	0.18	06/04/93	NH	0900
Sodium as Na	477	mg/l	0.81	06/02/93	NH	1040
INORGANICS:						
pH	8.5	S.U.	--	05/25/93	TK	1600
Total Dissolved Solids	1460	mg/l	20	05/28/93	CC	1805
METALS:						
Arsenic as As (Total)	<0.002	mg/l	0.0014	06/08/93	AH	1430
Barium as Ba (Total)	<0.1	mg/l	0.031	06/01/93	NH	1030
Cadmium as Cd (Total)	<0.003	mg/l	0.002	06/01/93	NH	1030
Chromium as Cr (Total)	<0.02	mg/l	0.009	06/01/93	NH	1030
Copper as Cu (Total)	<0.02	mg/l	0.005	06/01/93	NH	1030
Lead as Pb (Total)	<0.01	mg/l	0.001	06/14/93	NH	1000
Mercury as Hg (Total)	<0.0005	mg/l	0.00025	06/02/93	AH	1050
Selenium as Se (Total)	<0.002	mg/l	0.0011	06/03/93	AH	1330
Silver as Ag (Total)	<0.01	mg/l	0.0001	06/01/93	NH	1150
Zinc as Zn (Total)	0.04	mg/l	0.008	06/01/93	NH	1030

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Project Name: Sunnyside Cogen. G.W. Permit 5-137.2-91

Cm 4/1

Laboratory No.: 140277
Sample Name: CRB/042993
Sample Date: 04/29/93
Collected by: GREG McDONALD
Time Sampled: 1208
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	DATE OF ANALYSIS	ANALYST	ANALYSIS TIME
ANIONS:					
Alkalinity Bicarbonate as HCO_3	564 mg/l	--	05/12/93	HB	1000
Alkalinity Carbonate as CO_3	16 mg/l	--	05/12/93	HB	1000
Alkalinity Total as $CaCO_3$	488 mg/l	0.84	05/12/93	HB	1000
Chloride as Cl	67 mg/l	0.24	05/27/93	CC	1230
Sulfate as SO_4	593 mg/l	1.83	06/03/93	CC	1100
CATIONS:					
Calcium as Ca	27 mg/l	0.39	06/03/93	NH	1100
Hardness as $CaCO_3$	175 mg/l	--	06/03/93	NH	1100
Magnesium as Mg	26 mg/l	0.31	06/03/93	NH	1100
Potassium as K	13 mg/l	0.18	05/19/93	NH	0930
Sodium as Na	483 mg/l	0.81	06/03/93	NH	1100
INORGANICS:					
pH	8.5 S.U.	-	05/04/93	HB	1500
Total Dissolved Solids	1430 mg/l	20	05/06/93	CC	1615
METALS:					
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	05/20/93	AH	1430
Barium as Ba (Dissolved)	<0.1 mg/l	0.031	05/20/93	NH	1230
Cadmium as Cd (Dissolved)	<0.003 mg/l	0.002	05/20/93	NH	1230
Chromium as Cr (Dissolved)	<0.02 mg/l	0.009	05/20/93	NH	1230
Copper as Cu (Dissolved)	<0.02 mg/l	0.005	05/20/93	NH	1230
Lead as Pb (Dissolved)	<0.01 mg/l	0.001	06/14/93	NH	1000
Mercury as Hg (Dissolved)	<0.0005 mg/l	0.00025	05/20/93	NH	1100
Selenium as Se (Dissolved)	<0.002 mg/l	0.0011	05/21/93	NH	1100
Silver as Ag (Dissolved)	<0.01 mg/l	0.0001	05/20/93	NH	1230
Zinc as Zn (Dissolved)	0.08 mg/l	0.008	05/20/93	NH	1230

Client Name: CHEN-NORTHERN, INC. SALT LAKE CITY, UT
Project No.: 87-927
Project Name: Sunnyside Cogen. G.W. Permit 5-137.2-91

June 17, 1993

Laboratory No.: 140281
Sample Name: SPIKE 140277 CRB/042993
Sample Date: 04/29/93
Collected by: GREG McDONALD
Time Sampled: 1208
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	DATE OF ANALYSIS	ANALYST
ANIONS:				
Alkalinity Total as $CaCO_3$	100 %	0.84	05/12/93	HB
Chloride as Cl	99 %	0.24	05/27/93	CC
Sulfate as SO4	99 %	1.83	05/13/93	CC
CATIONS:				
Calcium as Ca	94 %	0.39	05/07/93	NH
Magnesium as Mg	97 %	0.31	05/07/93	NH
Potassium as K	105 %	0.18	05/19/93	NH
Sodium as Na	102 %	0.81	05/07/93	NH
METALS:				
Arsenic as As (Total)	110 %	0.0014	05/20/93	NH
Barium as Ba (Dissolved)	98 %	0.031	05/11/93	NH
Cadmium as Cd (Dissolved)	103 %	0.002	05/11/93	NH
Chromium as Cr (Dissolved)	95 %	0.009	05/11/93	NH
Copper as Cu (Dissolved)	92 %	0.005	05/11/93	NH
Lead as Pb (Dissolved)	82 %	0.001	06/14/93	NH
Mercury as Hg (Dissolved)	100 %	0.00025	05/17/93	NH
Selenium as Se (Dissolved)	85 %	0.0011	05/21/93	NH
Silver as Ag (Dissolved)	95 %	0.0001	05/11/93	NH
Zinc as Zn (Dissolved)	102 %	0.008	05/11/93	NH

CHEMTECH
ANALYTICAL LABORATORY
6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 1-11-93

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

cm 4/7

DATE SUBMITTED: 12-24-92
DATE SAMPLED: 12-22-92

CERTIFICATE OF ANALYSIS

SAMPLE ID:	Coarse Refuse Boundary	
LAB:	U089132	
PARAMETER		**ANALYST/DATE/TIME/METHOD**
Bicarbonate as HCO_3, mg/l	476	RG 12-30-92 @1230 EPA 310.1
Carbonate as CO_3, mg/l	0	RG 12-30-92 @1230 EPA 310.1
Calcium as Ca, mg/l	510	AR 1-05-93 @1500 EPA 215.1
Chloride as Cl, mg/l	91	TM 12-28-92 @1215 EPA 325.3
Hardness as $CaCO_3$, mg/l	2,720	TM 12-28-92 @1400 EPA 130.2
Magnesium as Mg, mg/l	316	AR 1-05-93 @1530 EPA 242.1
Potassium as K, mg/l	55	AR 1-04-93 @1500 EPA 258.1
Sodium as Na, mg/l	531	AR 1-05-93 @1300 EPA 273.1
Sulfate as SO_4, mg/l	3,275	TM 12-28-92 @1500 EPA 375.4
TDS, mg/l	5,475	RG 12-29-92 @1030 EPA 160.1
Iron as Fe (Acid Soluble), mg/l	2.90	AR 12-28-92 @0830 EPA 236.1
Manganese as Mn (T), mg/l	0.705	AR 1-06-93 @1410 EPA 243.1
Oil & Grease, mg/l	1.6	RG 12-29-92 @0900 EPA 413.1
Settleable Solids, ml/l	<.3	RG 12-28-92 @0800 EPA 160.5
TSS, mg/l	6.8	RG 12-28-92 @1000 EPA 160.2
Cation, meq/l	76.1	
Anion, meq/l	78.6	
Phenols, mg/l	0.0023	TH 12-30-92 @1130 EPA 420.1
pH - Field	8.3	
D.O. - Field	9.6	
Conductivity - Field	>5,000	

Russell Ruckman
Russell Ruckman

CHEMTECH
ANALYTICAL LABORATORY
6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 12-18-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

DATE SUBMITTED: 12-02-92
DATE SAMPLED: 11-30-92 @ 1045 by Peter Hess

CERTIFICATE OF ANALYSIS

SAMPLE ID:	CRB	
LAB:	U088436	
		ANALYST/DATE/TIME/METHOD
PARAMETER		
Bicarbonate as HCO_3, mg/l	466	RG 12-07-92 @1300 EPA 310.1
Carbonate as CO_3, mg/l	<1.0	RG 12-07-92 @1300 EPA 310.1
Calcium as Ca, mg/l	449	AR 12-11-92 @1415 EPA 215.1
Chloride as Cl, mg/l	100	NW 12-03-92 @1600 EPA 325.3
Hardness as $CaCO_3$, mg/l	2,760	RG 12-11-92 @1000 EPA 130.2
Magnesium as Mg, mg/l	347	AR 12-11-92 @1600 EPA 242.1
Potassium as K, mg/l	47	AR 12-14-92 @1230 EPA 258.1
Sodium as Na, mg/l	502	AR 12-14-92 @0830 EPA 273.1
Sulfate as SO_4, mg/l	3,170	RG 12-11-92 @1430 EPA 375.4
TDS, mg/l	5,400	RG 12-03/07 @1330 EPA 160.1
Iron as Fe (Acid Soluble), mg/l	3.46	AR 12-06-92 @1120 EPA 236.1
Manganese as Mn (T), mg/l	0.95	AR 12-05-92 @1010 EPA 243.1
Oil & Grease, mg/l	<1.0	RG 12-16-92 @0730 EPA 413.1
Phenols, mg/l	<.002	TH 12-08-92 @0720 EPA 420.1
Settleable Solids, ml/l	<.2	RG 12-02-92 @1430 EPA 160.5
TSS, mg/l	119	RG 12-03-92 @1330 EPA 160.2
Cation, meq/l	74.18	
Anion, meq/l	76.48	
pH - Field	8.6	
D.O. - Field	10.6	
Conductivity - Field	>5,000	

Joel Workman

CHEMTECH
ANALYTICAL LABORATORY
6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-24-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

DATE SUBMITTED: 10-28-92

CM 4/7

CERTIFICATE OF ANALYSIS

SAMPLE ID:	CRB 10-23-92 @ 1235	
LAB:	U083172	
PARAMETER		**ANALYST/DATE/TIME/METHOD**
Bicarbonate as HCO_3, mg/l	461	RG 11-02-92 @1030 EPA 310.1
Carbonate as CO_3, mg/l	0	RG 11-02-92 @1030 EPA 310.1
Calcium as Ca, mg/l	468	AR 11-03-92 @1650 EPA 215.1
Chloride as Cl, mg/l	96.0	TM 10-29-92 @0930 EPA 325.3
Hardness as $CaCO_3$, mg/l	2,794	TM 10-29-92 @1100 EPA 130.2
Magnesium as Mg, mg/l	336	AR 11-03-92 @1250 EPA 242.1
Potassium as K, mg/l	45	AR 11-02-92 @1100 EPA 258.1
Sodium as Na, mg/l	537	AR 11-02-92 @1400 EPA 273.1
Sulfate as SO_4, mg/l	3,317	TM 10-30-92 @0815 EPA 375.4
TDS, mg/l	5,600	RG 10-31-92 @1430 EPA 160.1
Iron as Fe (T), mg/l	3.22	AR 11-04-92 @0900 EPA 236.1
Manganese as Mn (T), mg/l	0.71	AR 11-03-92 @1630 EPA 243.1
Oil & Grease, mg/l	1.0	RG 11-10-92 @1400 EPA 413.1
Phenols, mg/l	<.002	TH 11-06-92 @1050 EPA 420.1
Settleable Solids, ml/l	<.1	RH 10-31-92 @1500 EPA 160.5
TSS, mg/l	148	RG 10-31-92 @1430 EPA 160.2
pH - Field	8.6	
D.O. - Field	7.6	
Conductivity - Field	>5,000	
Cation, meq/l	75.51	
Anion, meq/l	79.35	

Joel Workman

CHEMTECH
ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 1-02-92

TO: SRS, Inc.
P.O. Box 99
Sunnyside, UT 84539

cnl 4/1

SAMPLE ID: Sample CRB, Collected 12-11-91 @ 12:07 p.m. by KRH

DATE SUBMITTED: 12-12-91

CERTIFICATE OF ANALYSIS

LAB:	U071982	
PARAMETER		**ANALYST/DATE/TIME/METHOD**
Bicarbonate as HCO_3, mg/l	522	RG 12-13-91 @1030 EPA 310.1
Carbonate as CO_3, mg/l	0	RG 12-13-91 @1030 EPA 310.1
Calcium as Ca, mg/l	435	AR 12-31-91 @1310 EPA 215.1
Chloride as Cl, mg/l	87.0	TM 12-16-91 @1320 EPA 325.3
Hardness as $CaCO_3$, mg/l	2,703	TM 12-16-91 @0810 EPA 130.2
Magnesium as Mg, mg/l	340	AR 12-31-91 @1310 EPA 242.1
Potassium as K, mg/l	32.3	AR 12-26-91 @1310 EPA 258.1
Sodium as Na, mg/l	513	AR 12-26-91 @1310 EPA 273.1
Sulfate as SO_4, mg/l	3,078	TM 12-16-91 @1145 EPA 375.4
TDS, mg/l	5,540	RG 12-13-91 @1010 EPA 160.1
Iron as Fe (T), mg/l	10.58	AR 12-27-91 @1030 EPA 236.1
Manganese as Mn (T), mg/l	0.790	AR 12-28-91 @1030 EPA 243.1
Oil & Grease, mg/l	1.2	RG 12-17-91 @0810 EPA 413.1
Settleable Solids, ml/l	<.1	RG 12-13-91 @1305 EPA 160.5
TSS, mg/l	58	RG 12-13-91 @1005 EPA 160.2
Cation, meq/l	72.82	
Anion, meq/l	75.12	
pH Units - Field	7.75	
Conductivity, umhos/cm - Field	5,000+	
Diss. Oxygen - Field	3.0	

Rex Henderson