

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169



(308) 665-2215
(308) 665-2341 - FAX

October 29, 2003

Mr. Gary Janosko
Branch Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety and Safeguards
c/o Document Control Desk
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

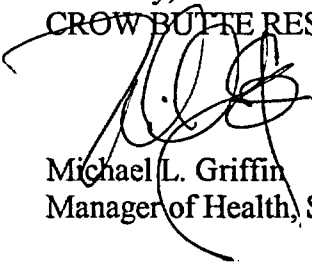
Subject: 2004 Annual Pond Inspection Report
Source Materials License SUA-1534
Docket Number 40-8943

Dear Mr. Janosko:

Enclosed please find an original certified copy of the Crow Butte Mine 2004 Annual Pond Inspection Report. This report is required under License Condition 11.4 of Source Materials License SUA-1534 in accordance with the latest revision of the Evaporation Pond Inspection Program dated February 5, 1996. Mr. David Coe, an independent contractor and a registered Professional Engineer in the State of Nebraska, performed the pond inspection and the technical evaluation, and wrote the final report. Civil surveys were performed by Pine Ridge Land Surveys of Chadron, Nebraska.

If you have any questions, please feel free to contact me at (308) 665-2215.

Sincerely,
CROW BUTTE RESOURCES, INC.


Michael L. Griffin
Manager of Health, Safety, and Environmental Affairs

Attachments: As Stated

NUMSS01
DOD Rec'd 11/10/04

CROW BUTTE RESOURCES, INC.

**86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169**



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cc: U.S. Nuclear Regulatory Commission
Mr. John Lusher - ADDRESSEE ONLY
Fuel Cycle Licensing Branch
Mail Stop T-8A33
Washington, DC 20555

Mr. David Miesbach
Underground Injection Control Program Coordinator
Nebraska Department of Environmental Quality
PO Box 98922
Lincoln, Nebraska 68509-8922

Mr. Steve Collings – CBR, Denver

CROW BUTTE RESOURCES, INC.

**CROW BUTTE MINE
DAWES COUNTY, NEBRASKA**

2004 POND INSPECTION REPORT

By: David V. Coe, PE
Nebraska Registration No. E - 4295

October 27, 2004

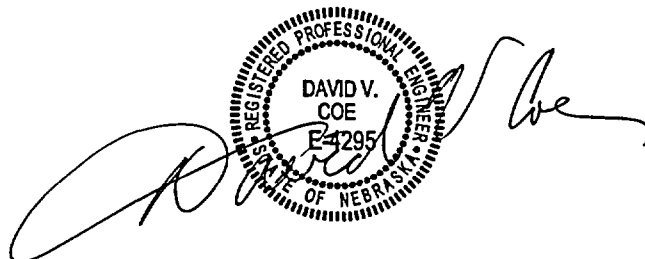
A handwritten signature in black ink is written over a circular professional engineer seal. The seal contains the text "REGISTERED PROFESSIONAL ENGINEER", "DAVID V. COE", "E-4295", and "STATE OF NEBRASKA".

TABLE OF CONTENTS

1.0	General.....	1
2.0	Review of Inspection Data.....	1
3.0	Technical Evaluation.....	2
4.0	Conclusions.....	3 - 4

Charts

Chart 1	-	Commercial Pond 1 2004 Data
Chart 2	-	Commercial Pond 3 2004 Data
Chart 3	-	Commercial Pond 4 2004 Data
Chart 4	-	R&D Cells 1 & 2 2004 Data

Figures

Figure 1	-	Commercial Pond Layout
Figure 2	-	R&D Pond Layout

Attachments

Attachment 1	-	Engineer's Inspection Diary Notes – 2004 Pages 1 - 9
Attachment 2	-	2004 Annual Survey Data

1.0 GENERAL:

An annual inspection of the Crow Butte ISL Mine pond system is required by the Evaporation Pond Onsite Inspection Program dated December 1992 (Revised February 26, 1993, August 30, 1993 and February 5, 1996) and by reference under license condition number 11.4 of SUA-1534. The inspection program provides for systematic inspections and an annual technical evaluation and inspection report which compares field inspection data with engineering design reports to assess structural stability and hydraulic and hydrologic capacities.

The 2004 annual report covers the time period of November 2, 2003 through November 1, 2004. During that period five evaporation ponds were in use, two R&D ponds (Cells 1 & 2) and three commercial ponds (Ponds 1, 3 and 4).

The R&D pond design report was prepared by Klohn Leonoff Consulting Engineers in 1983 and construction of R&D cells 1 and 2 was completed in 1985. The R&D ponds have two horizontal to one vertical interior and exterior embankment slopes with a 34 mil interior hypalon liner placed on top of six inches of sand. The underdrain leak detection system piping is located beneath the pond liner and reports to two six inch monitor stand pipes. The overall depth of the R&D ponds is 15 feet and the maximum operating level is 12 feet. This provides three feet of freeboard.

The commercial evaporation pond design report was prepared by Western Water Consultants, Inc. in 1988. Construction of ponds 3 and 4 was completed in 1990 and construction of pond 1 was completed in 1992. The exterior slopes of these ponds are 2.5 horizontal to 1 vertical. The interior slopes are 2:1. Ponds 3 and 4 have a 20 mil PVC bottom liner, an intermediate geonet and a 60 mil high density polyethylene(HDPE) top liner. In pond 1, a 30 mil very low density polyethylene(VLDPE) bottom liner was installed with an intermediate geonet and 60 mil HDPE top liner. Each pond has a leak detection system consisting of six separate perforated four inch pipes which report to leak detection standpipes located on the interior slopes.

The overall depth of Pond 1 is 17 feet from crest to pond bottom and the maximum operating level is 12 feet. The 12 feet provides five feet of freeboard. The overall depth of Ponds 3 and 4 is 17.5 feet with a maximum operating level of 12.5 feet which equates to a five foot freeboard.

2.0 REVIEW OF INSPECTION DATA:

The Evaporation Pond Onsite Inspection Program dated December 1992 as amended calls for systematic inspections on a daily, weekly, monthly and quarterly basis. Data from the inspection reports are shown on Charts 1 through 4 including pond depths and underdrain measurements. Zero pond depths are shown on the charts as a result of frozen pond conditions.

Two groundwater monitor wells are installed in the uppermost aquifer (Brule) in the commercial pond area and one groundwater monitor well in the R&D pond area. The wells are sampled quarterly for indications of leaks in the ponds. The wells provide backup leak detection for the underdrain leak detection system. The analysis of the quarterly samples tracks alkalinity, chloride, sulfate, sodium and conductivity. The concentration of the above chemicals is compared to baseline data established in 1990 and 1991. A review of the quarterly analysis reports for 2004 indicates all parameters have not substantially deviated from the baseline parameters.

An elevated underdrain conductivity level was detected on the northwest monitoring tube of Pond 1 in May, 2004. The causes of the leaks were small holes in the liner caused by the apparent abrasion on the liner from the spray system. The spray system probably rubbed against the liner during windy weather. A repair of the pond liner was accomplished and the conductivity level reduced to an acceptable level. The monitoring tubes were flushed with fresh water a many times after the liner was repaired. The records indicate the pond liner was repaired and a report was file with Nebraska Department of Environmental Quality August 13, 2004. This is the third consecutive year Pond #1 has had a leaking problem. The leaks seem to appear after the pond depths exceed the 9 foot depth in Pond #1. The aeration system has been blamed for the principle cause of the leaks.

3.0 TECHNICAL EVALUATION

The technical evaluation of the Crow Butte Mine ponds utilizes data from the systematic inspection reports, results of the annual survey and a visual inspection of the ponds to assess the hydraulic capacities and structural stability of the ponds.

Diary notes of the annual inspection are attached to this report as Attachment 1. The notes cover the visual inspection of the five ponds and the review of the reports and records for the review period of November, 2003 through October, 2004.

The annual survey was done in October and compared with previous annual survey data. The cross section at station 5+00, location 1019.37 had a variation in the elevation of 3.7' between 2003 survey and 2004 survey. The location was near the edge of a road. Previous surveys indicate the 2004 elevation is correct. No problems were indicated from a review of the survey information. Results of the annual survey are included in Attachment 2.

Pictures of the ponds have been taken for the last seven years. There has been significant improvement in the vegetative cover of the pond embankment slopes over the course of those years. The gravel surfacing of the embankment berms has improved the stability of the dam embankments. The gravel surfacing of the top of the berms prevents erosion and provides additional stability of the berm when vehicles travel on the berm during inclement weather. There are remaining sections of the pond's berms that could be surfaced with limestone base course.

No problems in the existing embankment alignment or sloughing were detected during the visual inspection of the ponds, diversion ditches and embankments. There were no signs of seepage in the embankments or at the toe of the embankment slopes.

A review of the weekly, monthly and quarterly inspection reports indicate there were no significant shortfalls of the pond operations during the year of 2004. All the required inspections, reports and record keeping were accomplished during 2004. The monitoring well analysis reports were taken on a quarterly basis. No significant deviation from baseline data was reported.

Calculations of diversion ditches were not included in this report, but are referenced in the previous annual reports. There have been no changes in the capacity of the diversion ditches over the last eight years. The existing ditch calculation of ditch flow can be found in Attachment 2 of the 2001 annual inspection report. These ditch calculations are also permanent records on file in the office of Crow Butte Mine. The installed ditches are capable of containing the design storm (USBR one-hour thunderstorm, zone 3) with an adequate freeboard.

The ponds have been operated at similar levels between 2003 and 2004. The capability of transferring one pond's storage into another pond without overfilling was maintained during the 2004 year. As of October 19, 2004 the pond system contained about 66 acre-feet (AF) of stored water. The allowable storage capacity of the five ponds is 122.4 AF which provides for transfer of any one pond's storage to another pond in the system in the event of an emergency.

4.0 CONCLUSIONS:

The visual inspection of the five evaporation ponds and diversion ditches along with the review of the available inspection reports and data indicate the ponds are operating in the constraints of the engineering design.

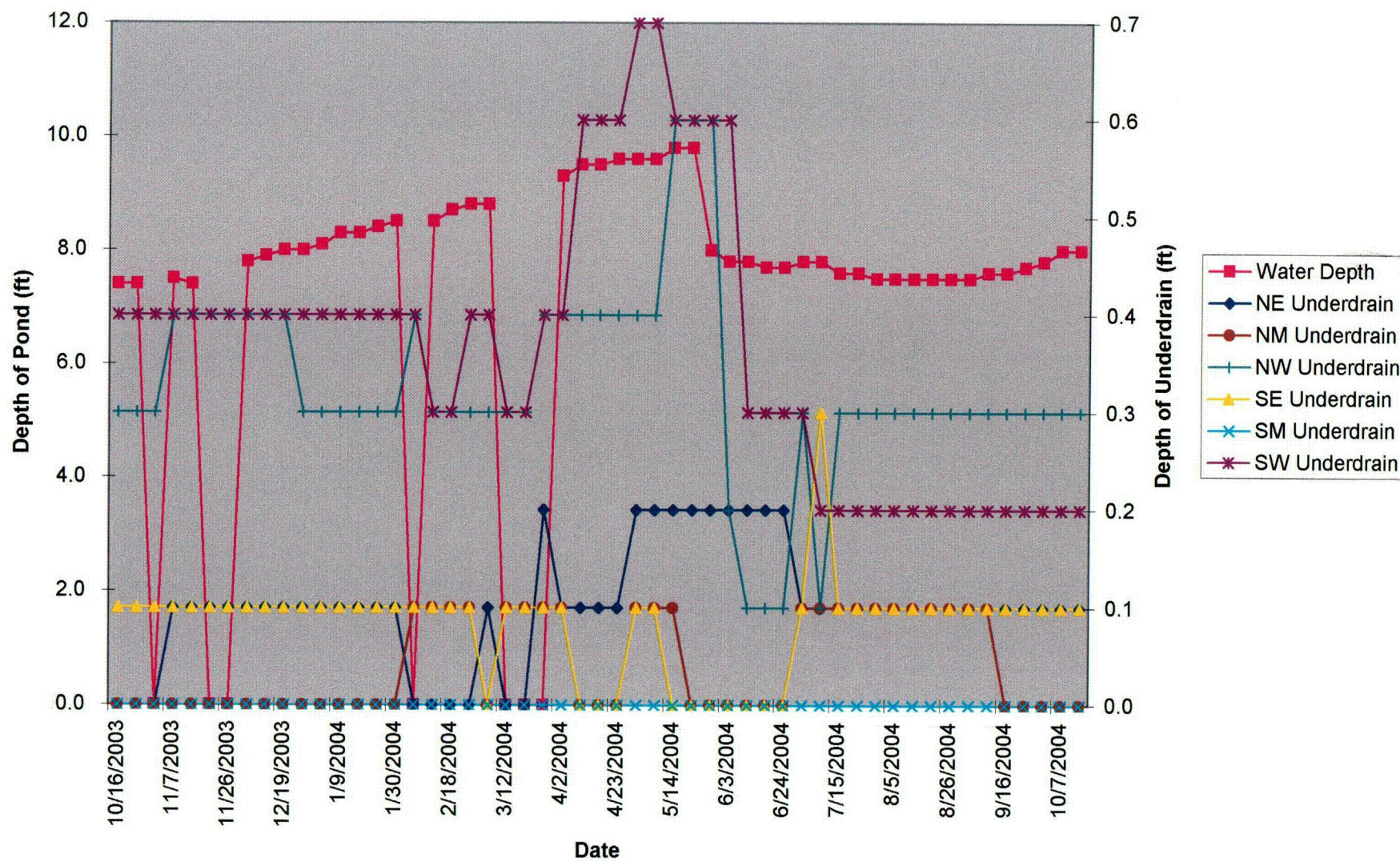
There has been a line leak in pond #1 the last three years. The leak has occurred in the northwest corner of the pond and the aeration system seems to be the cause of the liner damage. An aeration system with a more secure anchor system may prevent future liner damage. High wind activity on this pond must cause the aeration system to drift to the northwest corner of the pond. Most of the aeration systems have been removed from the ponds. A new and different aeration system is being considered by Crow Butte Resources. A new system will probably reduce the chances of liner damage and leaks. Vegetation was in good shape. Mowing of the embankment slopes may cause more damage to the slope than improvement in the vegetative cover.

The pond system is operating within its designed storage capacity. Adequate freeboard existed in each pond throughout the year and reserve capacity was available in the system to transfer the contents of any one pond to the pond system.

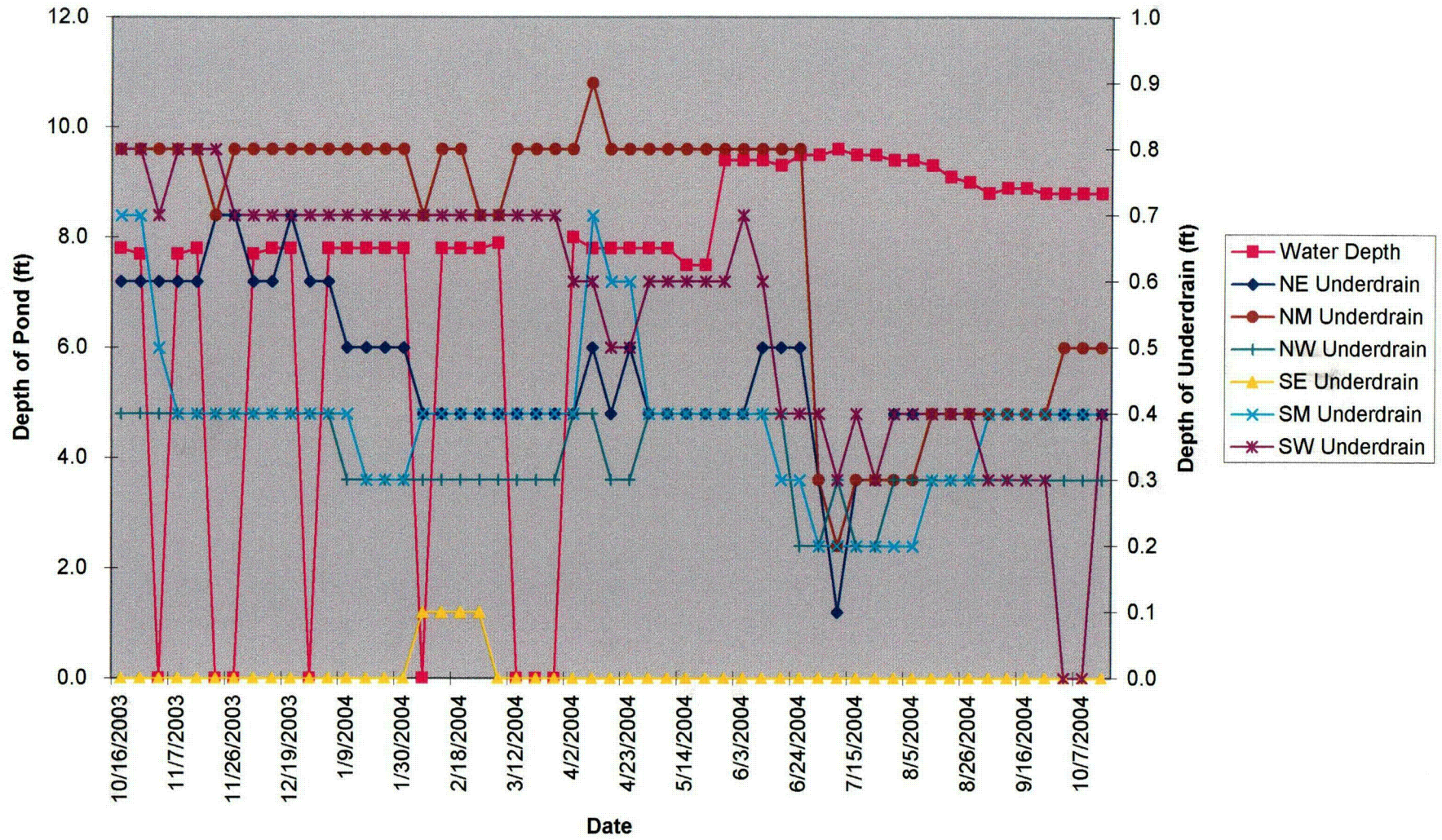
Diversion ditches were in good shape and are capable of containing the design flood.

The addition of gravel surfacing on the top of the embankment berms helps stabilize the embankments. Continuation of this practice would enhance the areas without gravel surfacing. Gopher and rodent maintenance has shown a great improvement over the last few years. There were very few dirt mounds in the pond fenced area.

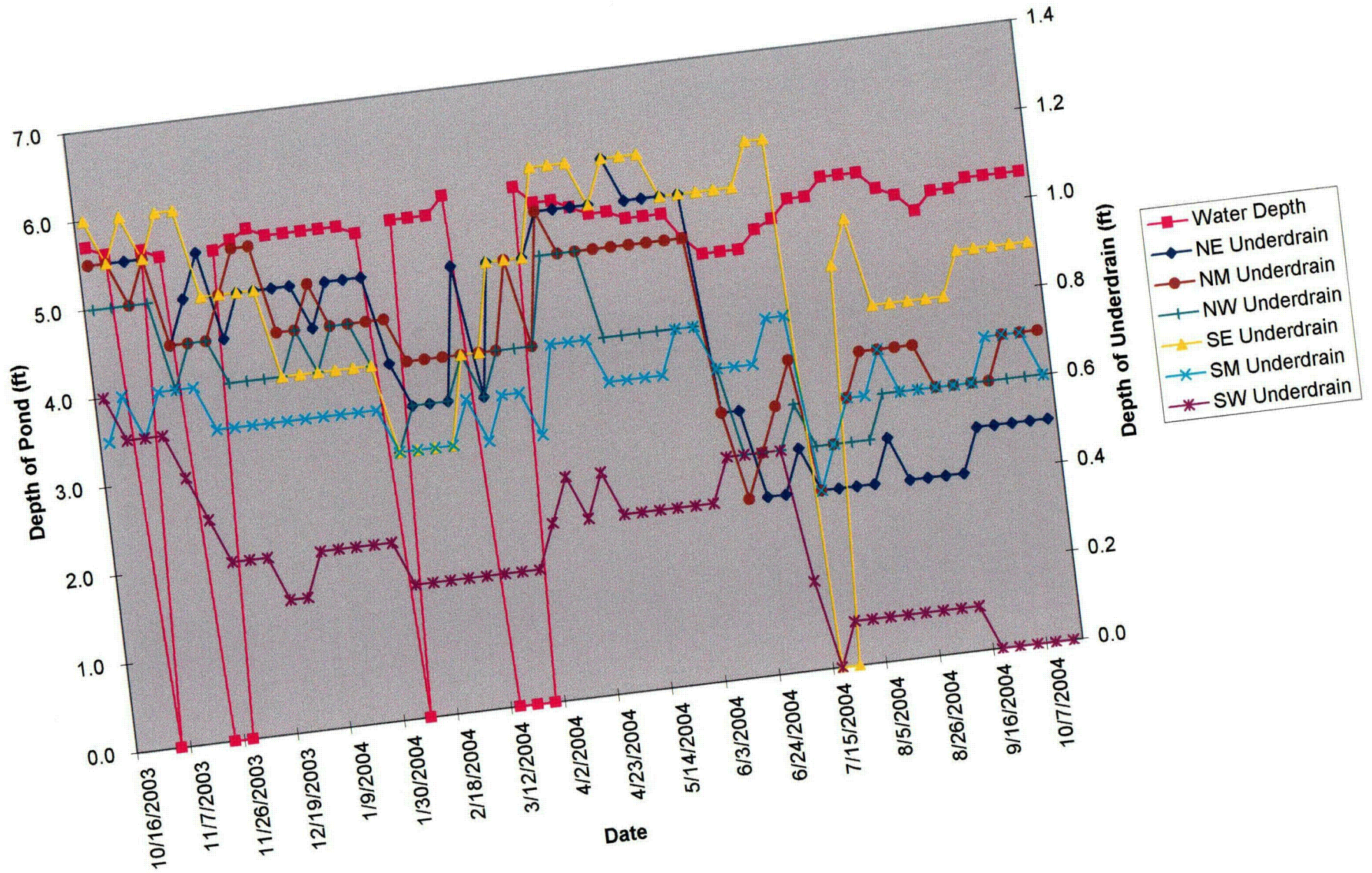
Commercial Pond 1 - 2004



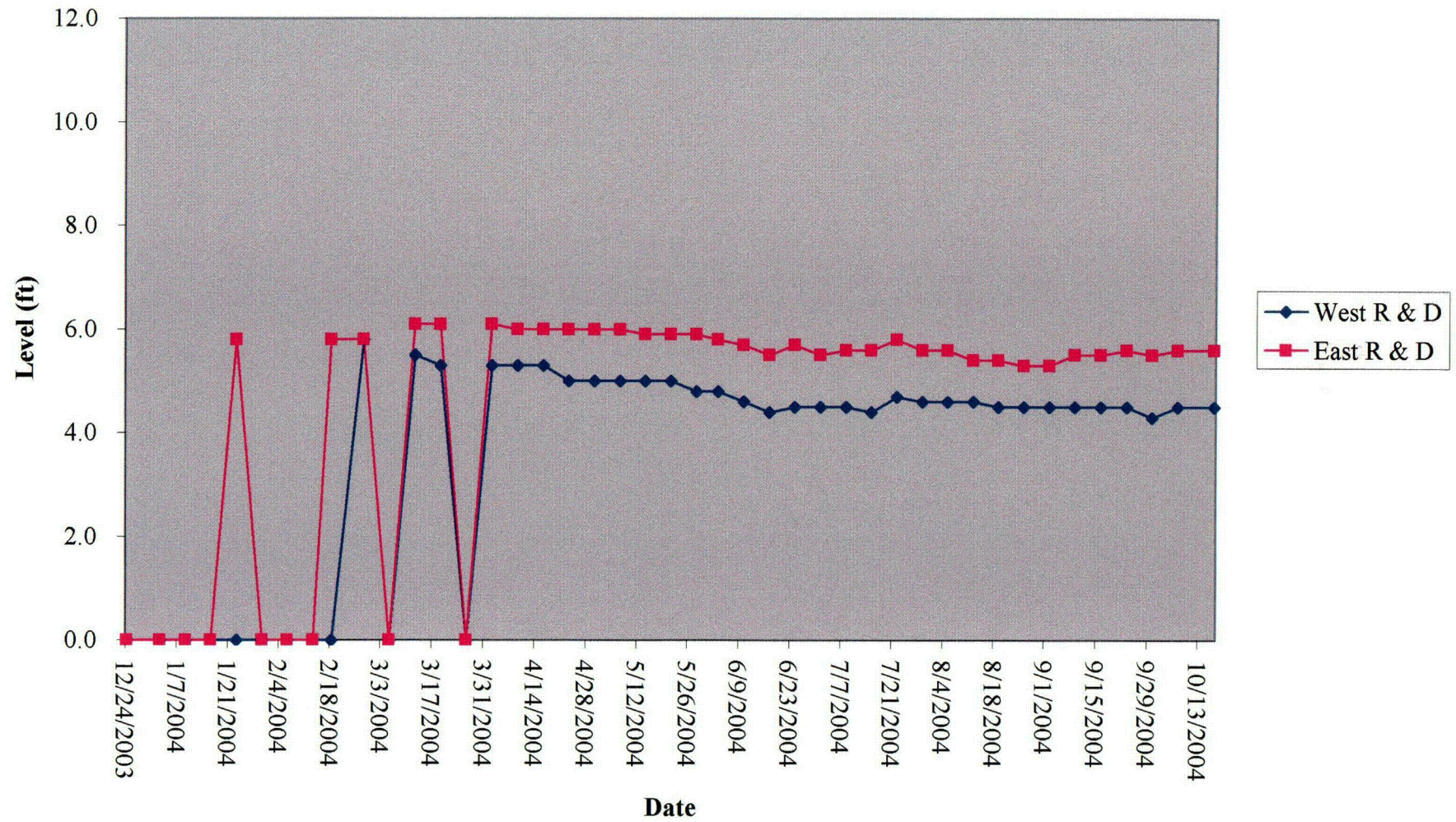
Commercial Pond 3 - 2004



Commercial Pond 4 - 2004

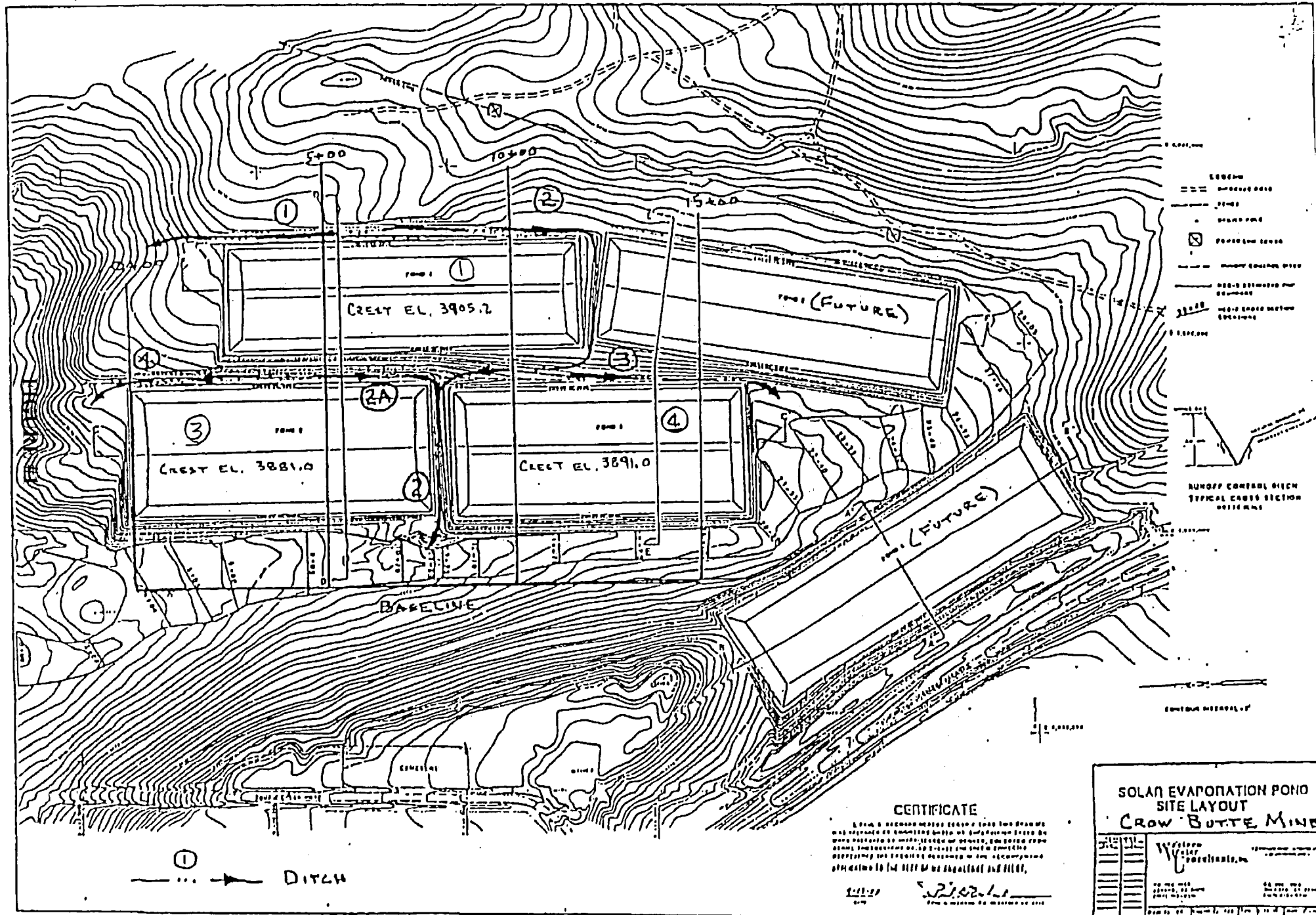


R & D Pond Levels - 2004



COF

Figure 1 Commerical Pond Layout



CERTIFICATE

I, the undersigned, being a duly qualified and licensed Professional Engineer, do hereby certify that the foregoing is a true and correct copy of the original as shown to me by the person or persons claiming to be the owner of the same, and that the same conforms to the requirements of the laws of the State of California, and that the same is a true and correct copy of the original as shown to me by the person or persons claiming to be the owner of the same, and that the same conforms to the requirements of the laws of the State of California.

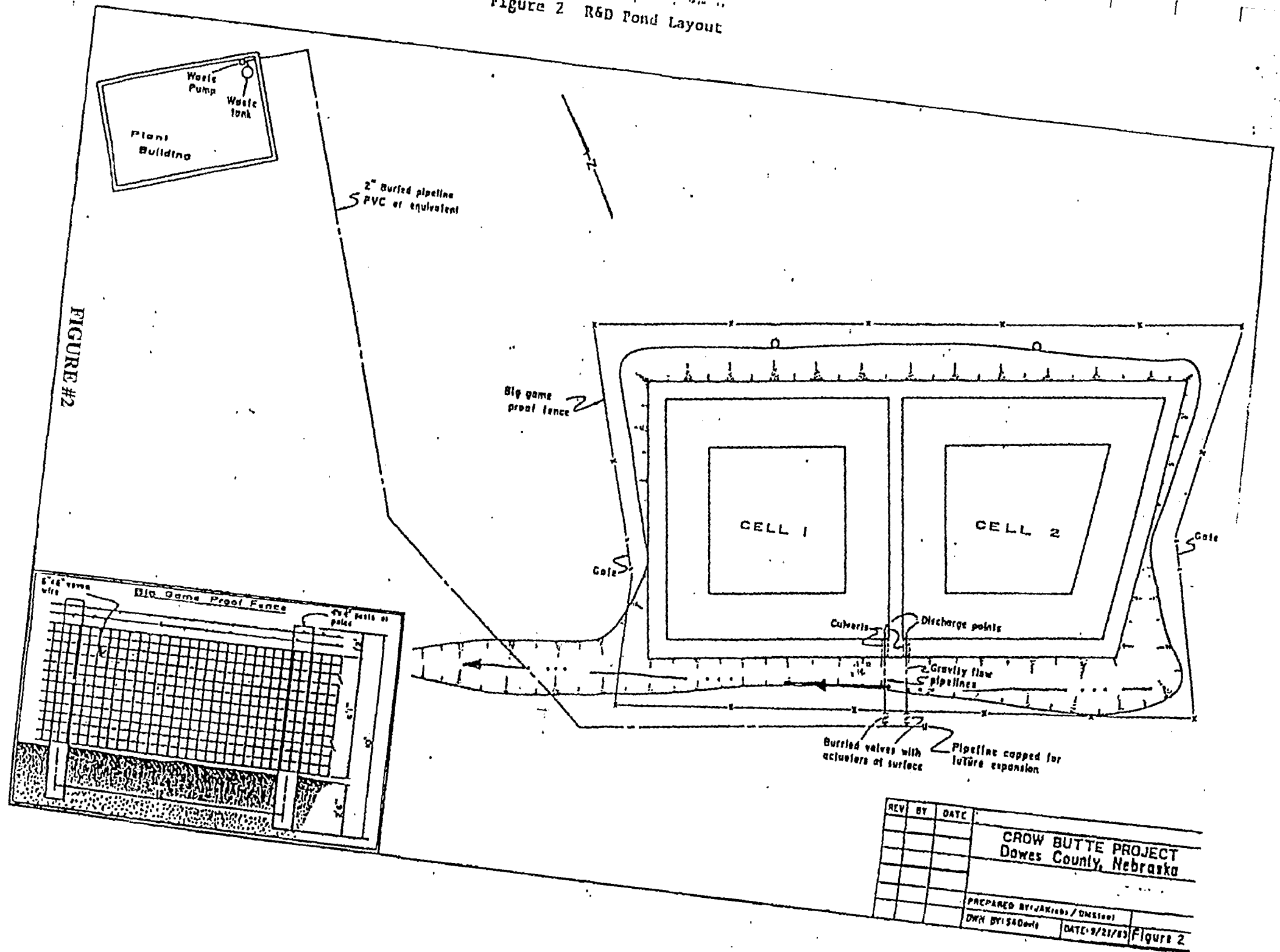
1999

2/2/99

SOLAR EVAPORATION POND
SITE LAYOUT
CROW BUTTE MINE

DATE	2/2/99	BY	W. J. [Signature]
SCALE	AS SHOWN	PROJECT	CROW BUTTE MINE
REVISION		DESIGNED BY	W. J. [Signature]
		CHECKED BY	W. J. [Signature]
		APPROVED BY	W. J. [Signature]

Figure 2 R&D Pond Layout



REV	BY	DATE	CROW BUTTE PROJECT Dawes County, Nebraska	
			PREPARED BY: JAKI (dbs / DMS100)	
			OWN BY: SAG (dbs)	
			DATE: 9/21/83	
			Figure 2	

CROW BUTTE RESOURCES, INC

Evaporation Holding Ponds Inspection David V. Coe, P.E.

October 19, 2004 I made an annual inspection of the ponds and record keeping files at Crow Butte Resources. I arrived at the site at 10:20 a.m. this morning. My contact at the mine site was Mike Griffin. I signed in and reviewed the current safety operational plans. Mike was tied up with some meetings this morning; therefore, I spent the remaining part of the morning reviewing the daily, weekly and quarterly inspection records Crow Butte Resources, Inc maintain over the year. The time covered with the reports was November, 2003 to October, 2004.

Mike Griffin gave me their files with the pond inspection records. Mike indicated they had a pond leak in Pond #1 earlier this year. This is the same pond that has had leaks on previous years.

I began reviewing the inspection reports for the last quarter of 2003 for the commercial ponds and the two R&D ponds. The reports recorded pond depths on a daily & weekly basis. Pond #1 was running about 7.5' deep. Pond #3 was about 7.75' deep and Pond #4 was about 5'-9" deep. Conductivity reading was recorded on a weekly basis. When the area between the pond liner and the bottom side of the leak detection liner exceeded 7" in depth; other actions to be taken with their daily inspections.

During the winter months, there are times when the water depth in the ponds can not be readily determined.

Reference inspection report remarks dated January 12 – 18, 2003. "The water depth markers on the liner need to be re-painted to make it easy to determine the accurate pond depth. During the month of October, there was a noted increase in burrow holes adjacent to the pond liner. Crow Butte Resources notified the Animal Damage Control Officer (USDA). The ADCO did some control work around the commercial ponds in the next three months. The most burrowing activity was on Pond #3.

November pond depths did not change significantly during the month. December records indicated Pond #1 depth increased to about 8'-1" in depth. The other ponds remained about the same as the months before.

The R & D ponds had two cells. The water depth in Cell #1 ran about 4'-11". Cell #2 (East Cell) was running about 5'-6" in depth. The depth of the west cell increased during the winter months to about 6'-11" (this might be a faulty reading since the normal readings of the R & D ponds has been about 5'. The next day the west cell had a recorded depth of about 5'.

I then checked the quarterly inspection reports for the commercial ponds. Ronda Grantham did the December, 2003 and March, 2004 inspections. The June & September inspections were completed by Mike Griffin. New radioactive signs were posted on the

perimeter of the fence on the commercial and R & D ponds. There were no sampling of the under drains of the R & D ponds during the first two quarters. The depth of the ponds is too low to activate the requirement for underdrain sampling. The water depth of the under drains remained below 6" most of the year.

There were weekly conductivity readings of the commercial ponds. Most of the conductivity readings for ponds #3 & #4 were low enough not to warrant remedial actions. Pond #1 had raised conductivity reading in the early spring. The increase in the level of conductivity indicates there is a possibility of the leak or hole in the main liner.

January 1, 2004 the pond depths were: Pond #1 – 8'-1", Pond #3 – 7'-9" and Pond #4 – 5'-7". January 30th, Pond #1 – 8'-6", Pond #3 – 7'-10" and Pond #4 – 5'-6". March 1 showed no significant changes in pond depths. April 3, pond depths were: Pond #1 – 9'-4", Pond #3 – 8' and Pond #4 – 5'-9". May 1; pond depths were: Pond #1 – 9'-7"; Pond #3 – 7'-9" and Pond #4 – 5'-5".

May 23, 2004 had reports of a possible leak in Pond #1. Transfer of Pond #1's water was begun. The transfer was from Pond #1 to Pond #3. In three days, the transfer was stopped.

June 5th; the pond depths were: Pond #1 – 7'-9", Pond #3 – 9'-5" and Pond #4 – 5'.

There was considerable work being performed on the ponds during the month of June. After a leak is detected in a pond, the leak detection cells have to be cleaned so accurate reading can be taken to detect possible leaks.

July 27th a leak was found in Pond #1. The leak location was a punch type hole. Crow Butte Resource hired a professional leak detection & repair firm from the Denver area. The leaks were located and repairs were accomplished on the liner in Pond #1 and Pond #4. All necessary reporting was taken care of. The Nebraska Department of Environmental Quality was notified (June 11) of the leak and the corrective actions (August 13) taken by Crow Butte Resources. The conductivity of the leak detection tubes reached similar conductivity reading of the pond's water. A good indication of pond water leaking into the leak detection area.

July 29th gopher poison was plowed around the perimeters of the three commercial ponds.

There was no significant change in pond depths from the June 5th as compared to depths August 1st.

September 25, 2004, pond depths were: Pond #1 – 7'-8"; Pond #3 – 9'-0" and Pond #4 – 5'-3".

The depths for the R & D ponds ranged from 5' to 6' most of the entire year.

Mike Griffin and I made a physical inspection of the three commercial ponds and the two R & D ponds. Mike was doing a quarterly inspection of the ponds while I was performing the annual inspection of the ponds.

The vegetation around the entire ponds areas was in great shape. There has been no deterioration during the last year. Most of the sprinkler or aeration systems have been removed from the ponds. There were tremmie tubes on all the influent lines coming into the ponds. The vegetation cover on the east slope of the diversion ditch between pond 1 and ponds 3 & 4 still has not fully developed. The slope is lacking a good top soil cover. I noticed new radioactive signs had been posted around the perimeter fence.

The depth marks on all the ponds was difficult to read. This was noted on some of the daily inspection report forms.

I did not observe any seepage areas near the toe of the embankment slopes of all the ponds. The ground moisture on all areas appeared to have good moisture content.

Weeds and other vegetative material were collecting near the pond banks on the windward sides of the ponds. I believe the collection of the weeds and their location is dependent upon the prevailing winds.

Pond #3 had excellent vegetative cover on the west and north slopes. The water level depth was about 9'.

Pond depth for Pond #1 was 8.5'. Pond depth for Pond #4 was 5'.

I did not notice any significant burrow holes along the embankment of the three commercial ponds. I believe the gopher poison helps detour the problem rodents in the pond area.

There was water collecting in the diversion ditch between ponds 3 & 4. This is probably a result of the recent rains. The same condition of water collecting near the toe of the embankment slope was observed in 2003 inspection. I believe the diversion ditch has a high point near the west end which prevents the water in the ditch to drain to the west. With the standing water in the ditch line; it is difficult to determine if there is a significant drainage problem with the toe of the pond embankment slope. I did not notice any running water in the ditch line.

Mike and I inspected the R & D ponds. The diversion ditch is lined. The ditch had vegetation growing in the invert of the ditch. There was also standing water in the ditch line. This is similar to the standing water in the diversion ditch between commercial ponds #3 & #4. There was no seepage at the toe of the slopes on the R & D ponds. The diversion ditch is on the south side of the ponds.

The pond depth for the west cell was 4.5'. The east cell had a water depth of 5.5'.

I noticed two puncher holes in the west cell pond liner. The holes were near the top of the pond embankment.

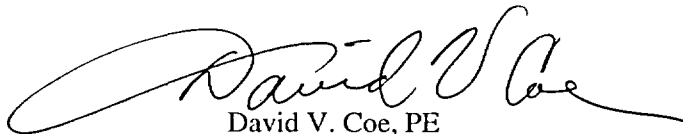
Samples of the monitoring well reports for wells 1 & 2 and R&D well are shown below:

<u>DATE</u>	<u>Well No.</u>	<u>Alk</u>	<u>Cl</u>	<u>Conductivity</u>	<u>SO4</u>	<u>Na</u>
11/21/03	Com-1	190	2.9	420	12	16
	Com-2	190	4.4	420	11	14
	R&D	170	2.2	390	7.0	16
02/06/04	Com-1	200	3.0	430	11	16
	Com-2	185	5.0	420	11	13
	R&D	175	3.0	400	5	16
04/21/04	Com-1	195	6.0	430	13	16
	Com-2	195	4.0	420	13	15
	R&D	170	3.0	400	7.0	17
08/16/04	Com-1	178	3.0	430	12	15
	Com-2	173	6.0	420	13	14
	R&D	160	1.0	390	7.0	15
02/07/91	Base-1	201	2.90	435	20.43	17.67
02/07/91	Base-2	190	3.47	440	11.33	13.37
01/15/91	Base-R&D	175	1.7	409	10.8	14.5

My opinion of the evaporation ponds is they are being administered in a safe and prudent manner. The monitoring for leaks and serious pond erosion is in compliance with the approved monitoring plan. Records of monitoring reports are in being maintained in compliance with the monitoring plan.

I surveyed myself for radioactive residue, signed out and left the site at 14:30 hours.

Photos of my inspection follow on the next five pages of this report.


David V. Coe, PE
Nebraska Registration # 4295



Northwest view of evaporation pond #1, date: 10/19/04



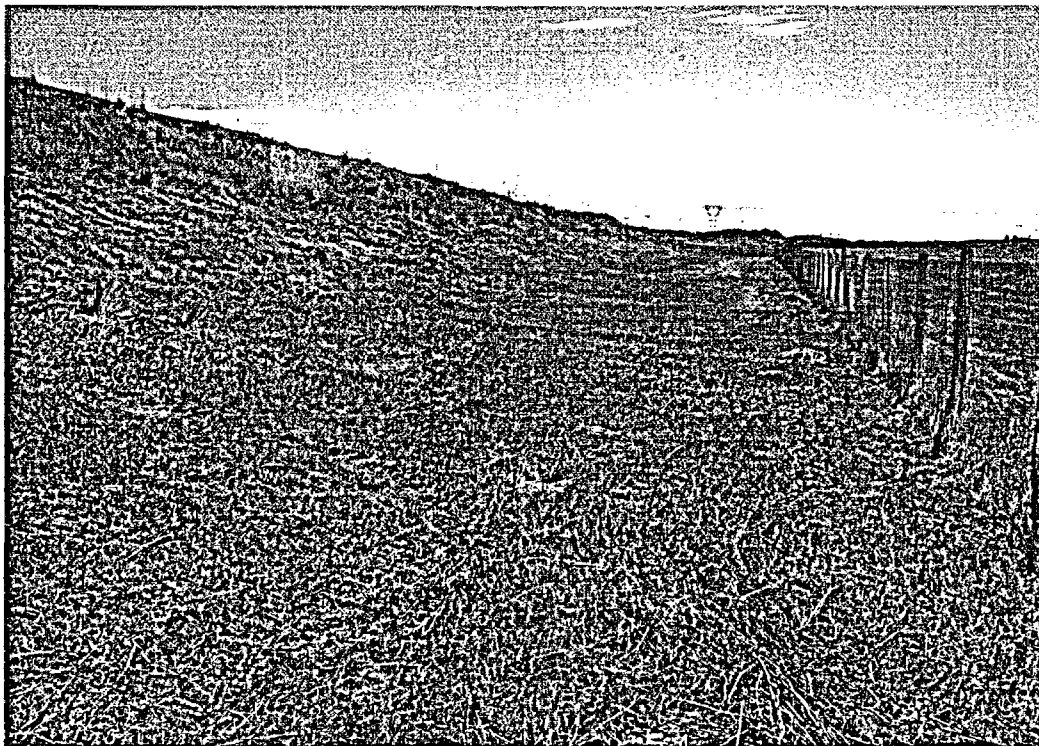
Northwest view of pond #3. Date: 10/19/04



North view of west embankment of pond #3. Date: 10/19/04



Northeast view of pond #4. Date: 10/19/04



West embankment of Pond #4, dated: 10/19/04



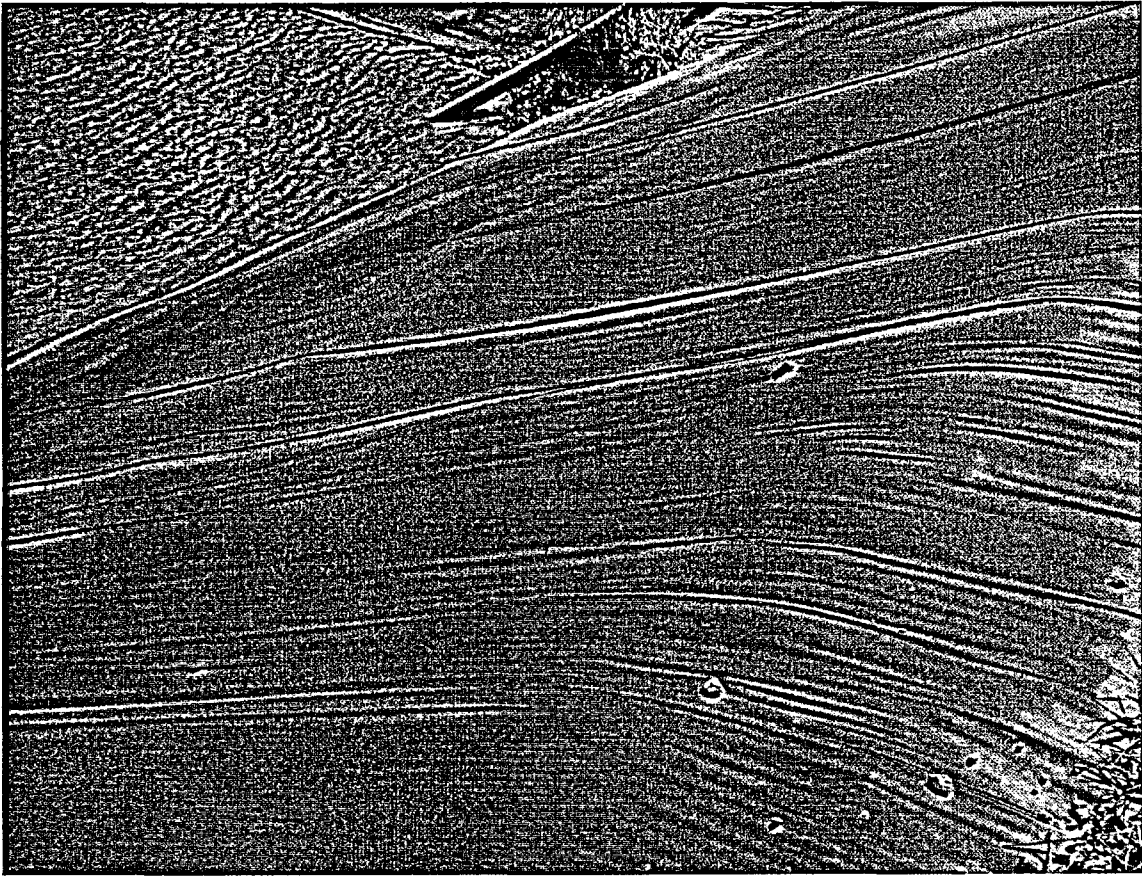
Damp area in roadway between ponds #3 & #4. Damp area was in line with wheel way of vehicle traffic. Date: 10/19/04



Southeast view of Cell #1 (west) of R & D Ponds. 10/19/04



**East view of north embankment of R&D ponds. Excellent vegetative cover.
Date: 10/19/04**

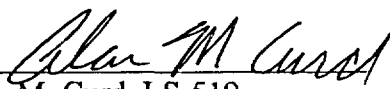


Two puncture holes in liner in Cell #1 (West): Date: 10/19/04

CROW BUTTE RESOURCES, INC.
RANGE ONE
CROSS SECTIONS FOR PONDS
STATION 0+00
October 14, 2004

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3851.76	0+00 B.L.	REBAR&CAP
89.29	3851.01	FENCE	GROUND
118.05	3852.67	GROUND	HUB
131.73	3854.31	TOE OF SLOPE	TOE
162.63	3866.95	MIDPOINT SLOPE/DIRT	GROUND
195.48	3879.98	OUTSIDE OF BERM	GROUND
356.73	3880.77	MIDPOINT POND ON BERM	REBAR
532.81	3880.79	OUTSIDE EDGE BERM	GROUND
538.23	3878.98	"V" OF DITCH	GROUND
548.43	3883.12	TOP OF SLOPE	GROUND
554.33	3883.69	FENCE	GROUND
564.28	3884.27	WEST EDGE OF ROAD	GROUND
576.53	3884.28	EAST EDGE OF ROAD	GROUND
585.23	3882.91	"V" OF DITCH	GROUND
594.03	3884.88	TOP OF DITCH	GROUND
639.68	3888.49	0+00 E.B.	REBAR&CAP

Note: Elevations taken with a Topcon Total Station, with my estimated accuracy of .10 of a foot.


Alan M. Curd, LS-519

CROW BUTTE RESOURCES, INC.
 RANGE TWO
 CROSS SECTIONS FOR PONDS
 STATION 5+00
 October 14, 2004

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3862.21	5+00 B.L.	REBAR&CAP
92.37	3860.98	FENCE	GROUND
144.03	3862.32	HUB	HUB
150.37	3863.01	TOE OF SLOPE	GROUND
173.07	3871.36	MIDPOINT OF SLOPE	GROUND
194.47	3880.56	OUTSIDE EDGE BERM/DIRT	GROUND
205.12	3881.45	INSIDE EDGE BERM/LINER	LINER
522.25	3880.69	INSIDE EDGE BERM/LINER	LINER
528.09	3880.45	OUTSIDE EDGE BERM/REBAR	REBAR
537.37	3878.76	"V" OF DITCH	GROUND
563.00	3882.71	WEST EDGE OF ROAD	GROUND
577.31	3882.10	EAST EDGE ROAD	GROUND
608.77	3894.14	MIDPOINT OF SLOPE	GROUND
634.32	3904.64	OUTSIDE EDGE BERM	GROUND
636.83	3904.98	PREV. OUTSIDE EDGE BERM	REBAR
646.27	3905.17	INSIDE EDGE BERM	LINER
907.07	3905.01	EDGE BERM	LINER
909.82	3905.13	INSIDE EDGE BERM	LINER
915.41	3904.97	CENTER OF BERM	REBAR
918.77	3905.13	OUTSIDE EDGE BERM	GROUND
934.12	3900.03	W. EDGE FLAT BOTTOM DITCH	GROUND
945.27	3900.02	E. EDGE FLAT BOTTOM DITCH	GROUND
970.07	3908.75	TOE OF SLOPE	GROUND
993.17	3910.28	FENCE	GROUND
998.97	3910.94	TOP OF SLOPE	GROUND
1007.07	3914.26	W. EDGE OF ROAD	GROUND
1019.37	3914.48	E.EDGE OF ROAD	GROUND
1022.27	3916.02	E. TOE OF SLOPE	GROUND
1033.62	3919.45	MIDPOINT OF SLOPE	GROUND
1077.47	3929.11	TOP OF SLOPE	GROUND
1094.55	3929.50	5+00 E.B.	REBAR&CAP

CROW BUTTE RESOURCES, INC.
 RANGE THREE
 CROSS SECTIONS FOR PONDS
 STATION 10+00
 October 14, 2004

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3874.32	10+00 B.L.	REBAR&CAP
96.64	3868.96	FENCE	GROUND
122.04	3870.29	TOE OF SLOPE	HUB
147.94	3879.48	MIDPOINT SLOPE	GROUND
174.24	3889.98	OUTSIDE EDGE BERM	REBAR GONE
185.94	3890.87	INSIDE EDGE BERM	LINER
500.44	3890.90	INSIDE EDGE BERM	LINER
509.93	3889.83	OUTSIDE EDGE BERM	REBAR
537.14	3888.06	WEST EDGE ROAD	GROUND
545.24	3888.22	EAST EDGE ROAD	GROUND
553.24	3887.05	W. EDGE FLAT BOTTOM DITCH	GROUND
560.54	3886.96	E. EDGE FLAT BOTTOM DITCH	GROUND
569.84	3889.59	TOP OF DITCH	GROUND
598.94	3890.84	TOE OF SLOPE	HUB
617.34	3897.86	MIDPOINT OF SLOPE	GROUND
634.54	3905.06	OUTSIDE EDGE BERM	REBAR
644.24	3905.41	INSIDE EDGE BERM	LINER
908.74	3905.02	INSIDE EDGE BERM	LINER
918.89	3905.08	OUTSIDE EDGE BERM	REBAR
931.84	3900.54	W. EDGE FLT. BTM. DITCH/TRAIL	GROUND
942.88	3900.48	E. EDGE FLT. BTM. DITCH/TRAIL	GROUND
974.64	3911.19	TOP OF DITCH	GROUND
989.54	3912.12	FENCE	GROUND
1006.17	3913.04	TOE OF SLOPE	GROUND
1014.24	3915.07	TOP OF DITCH	GROUND
1020.34	3913.20	"V" OF DITCH	GROUND
1024.44	3915.20	TOP OF DITCH	GROUND
1038.04	3917.87	MIDPOINT OF SLOPE	GROUND
1066.04	3920.78	TOP OF SLOPE	GROUND
1086.44	3920.06	LOW POINT	GROUND
1148.48	3925.0	10+00 E.B.	REBAR&CAP

CROW BUTTE RESOURCES, INC.
RANGE FOUR
CROSS SECTIONS FOR PONDS
STATION 15+00
October 14, 2004

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3883.66	15+00 B.L.	REBAR&CAP
99.74	3875.56	FENCE	GROUND
136.75	3876.13	TOE OF SLOPE	HUB
156.10	3883.68	MIDPOINT OF SLOPE	GROUND
173.00	3890.06	OUTSIDE EDGE BERM	GROUND
185.92	3891.15	INSIDE EDGE BERM	LINER
499.40	3890.89	INSIDE EDGE BERM	LINER
508.40	3891.09	OUTSIDE EDGE BERM	GROUND
514.70	3889.57	"V" OF DITCH	GROUND
524.64	3892.17	TOP OF DITCH	GROUND
536.12	3892.54	FENCE	GROUND
554.40	3892.99	TOE OF SLOPE	GROUND
559.60	3894.58	TOP OF SLOPE	GROUND
696.92	3903.59	HIGH POINT	GROUND
789.42	3904.96	LOW POINT	GROUND
985.61	3915.09	15+00 E.B.	REBAR&CAP