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Pam

CYPRUS Plateau Mining

Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501
(801) 637-2875

March 30, 1993

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DIVISION OF
OIL GAS & MINING

Mr. Lowell Braxton
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton,

Re: 1992 Annual Reports

Enclosed are the following annual reports for 1992:

Subsidence Monitoring (Includes areas mined in 1992 and future mining)
Vegetation Monitoring
4th Quarter Refuse Pile Certification
Sediment Pond Certification
Corporate Officers and Directors
Precipitation Data
Temperature Data
Coal Production

As I discussed with you on Friday, March 26, we are wrapping up the 1992 hydrology report. We have established a computer data base system in-house to monitor hydrology; this process has been a long drawn out one but, in the future will allow us to do a better job of tracking water impacts. We are nearly finished with the effort and need an additional week to complete the job. Thank you for allowing an additional week to submit this report. The report will consist of a written evaluation of the data for 1992 compared to past monitoring data, and all data on disk.

Respectfully,

Ben Grimes
Environmental Coordinator

File: ENV 2-5-2-1-8
Chrono: BG930314

COAL MINING AND RECLAMATION OPERATIONS FOR 1992

(Must be submitted to the Division by March 31, 1993)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

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Permittee: CUPRUS PLATEAU MINING GRP.

Mine Name: STAR POINT MINES

Mailing Address: P.O. DRAWER PMC, PRICE, UT 84501

Company Representative: BEN GRIMES

Resident Agent: D. BLAIR, C.T. CORPORATION SYSTEM/50 WEST BROADWAY, SALT LAKE CITY

Permit Number: ACT/007/006

MSHA ID Number: 52-00171

Date of Initial Permanent Program Permit: 1/27/82

Date of Permit Renewal: 1/27/92

Quantity of Coal Mined (tonnage) 1992: 2,404,000

Attach Updated Mine Sequence Map(s) showing mine development through December 31, 1992. (Same as Lease Royalty Payment Map and/or MSHA Progress Map)

All monitoring activities during the report period to be submitted with this report (including, but not limited to):

A. Summarized Water Monitoring Data:

1. **List of monitoring points and their locations and respective frequencies of monitoring (monthly, quarterly, etc.) as approved in the PAP;**
2. **UPDES permit number, UPDES discharge points and their locations;**
3. **Summary of findings based on water monitoring during 1992; and**
4. **Submit water monitoring as database files (ASCII, Lotus, dBase, etc.) (Please contact Ken Wyatt if you have any questions).**

B. Precipitation or Other Climatological Data (please submit as database files: ASCII, Lotus, dBase, etc.-- Contact Ken Wyatt if you have any questions).

Cyprus Plateau Mining Corporation

Quarterly Refuse Pile Certification
Fourth Quarter 1992

I hereby certify that I am a registered professional engineer in the State of Utah. I certify that I have made an inspection of the coal processing refuse pile at Cyprus Plateau Mining Corporations' Star Point Mine in Carbon County Utah. The refuse pile has been constructed and maintained as designed. There are no apparent areas of instability, structural weakness or other hazardous conditions.

John Borla Date: 12-21-92
John Borla

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Refplct1.292

Cyprus Plateau Mining Corporation

1992 Sediment Pond Certification

I hereby certify that I am a registered professional engineer in the State of Utah. I certify that I have made an inspection of Sediment Ponds 1 through 9 at Cyprus Plateau Mining Corporation, and that all of the pond embankments appear to be stable and in good physical condition. There are no apparent structural weaknesses or other hazardous conditions at any of the ponds. I certify that I have reviewed the documentation pertaining to Attachment A, and that to the best of my knowledge the information shown thereon is accurate.

John Borla Date: 12-21-92

John Borla

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PondCrt1.292

ACT/007/006 #6

Annual Reports Review

Mine Name Plateau - Star Point Mine

Date Submitted 4/1/93

Sections to be reviewed: PLEASE CHECK WHEN YOU REVIEW. TMX.

Cover Sheet and Mine Sequence Map - Jesse
Date Reviewed _____

Summarized Water Monitoring Data - Ken
Date Reviewed _____

Precipitation and Climatological Data - Ken
Date Reviewed _____

Subsidence Monitoring Report - Jesse
Date Reviewed _____

Vegetation Data and Revegetation Success Monitoring - Susan
Date Reviewed _____

Annual Impoundment Certification - Jesse
Date Reviewed _____

Annual Overburden, Spoil, Refuse, Roof, Floor, etc - Henry
Date Reviewed _____

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CYPRUS-PLATEAU MINING COMPANY

STAR POINT MINES

1992 ANNUAL RECLAMATION MONITORING REPORT

Submitted to

Cyprus-Plateau Mining Company
P.O. Box Drawer PMC
Price, Utah 84501

Prepared by

IME
P.O. Box 270
Yampa, CO 80483

January 1992

INTRODUCTION

This annual reclamation monitoring report is submitted by Cyprus-Plateau Mining Company, here after referred to as Plateau or CPMC, in accordance with their approved Mining and Reclamation Plan, which requires that all previously reclaimed sites be monitored to determine the relative degree of revegetation success on all temporarily and permanently reclaimed sites. The specific revegetation monitoring schedule is found on Table 356.100a on page 300-153 of their current permit. This submittal contains the results of all areas which required monitoring according to this approved schedule. This report contains the results of field sampling data collected on September 12, 1992. These data were collected by Kent Crofts and Mike Jones. The reclamation monitoring program conducted in 1992 employed the same observers and data evaluation techniques with all previously collected reclamation monitoring data collected at this site since 1985.

Plateau has collected revegetation success data since 1981 from all previously reclaimed sites, the results of which have been submitted annually to the Division. Due to the voluminous nature of these previous submittals, it is not practicable to provide a complete comparison of all of this monitoring data for the sites monitored during the 1992 sampling effort. Therefore, in order to more fully understand the history and results obtained from previous monitoring efforts, the reviewer is referred to these previous submittals. Where it is possible, summaries of these previously collected information are compared with the data collected in 1992 to determine possible revegetation trends.

SAMPLING METHODOLOGIES

The data collected in the 1992 monitoring effort utilized identical sampling methodologies, equipment, observers and methods of data collection and analysis which has previously been approved by the Division. The vegetative parameters sampled in 1992 included total plant cover. Due to the similarity of previous sampling methodologies, CPMC believes that a comparison of the 1992 data with previously collected data is possible to determine the revegetation trends with respect to the successfulness of current and previous revegetation efforts.

Cover. Total plant cover was measured using an inclined metal ten point frame. Along a fifty foot transect tape, the ten point frame was randomly located at different intervals obtained from a hand held calculator and assigned to the data sheets prior to going to the field. Along each transect, 10 sample sites equalling 100 data points were evaluated. All foliar plant cover less than one meter in height was sampled. At each sample point, the observation was recorded by plant species, or whether litter, bare ground, rock or lichens were present. Plant material that had drier prior to sampling (such as annuals), but which was a product to the 1992 growing season was counted as plant cover. Litter was defined as that plant material that had been on the ground or portions of the plant material which had been dead for approximately one year prior to sampling. The one hundred datum points were summarized into a single observation which was used for subsequent data analysis and statistical comparisons. To the extent that the site

configuration allowed, all transects were randomly located with respect to orientation and location using random numbers generated from a hand held calculator.

Data Analysis. All of the field data were summarized using hand held calculators to determine transect and site values. Sample adequacy equations recommended by the Division were calculated on all data collected from each sample location. Total plant cover sample adequacy calculations were made in the field using hand held calculators prior to leaving each sample site. Statistical analyses of these data were made using the NCSS statistical software package on an AT personal computer. Statistical tests performed included two tailed *t tests*. All mean comparisons were completed using a 0.10 statistical confidence interval.

Revegetation Success Criteria. Since none of the corresponding Reference Areas were sampled during this evaluation, absolute comparisons regarding revegetation success on each individual reclaimed site to its corresponding Reference Area could not be made. Therefore, in order to determine the apparent degree of revegetation success of each reclaimed area sampled in the 1992 monitoring effort was compared to the total plant cover values obtained from the initial sampling of the approved Reference Areas. These data, collected in 1981-3 are summarized into the following comparison.

REFERENCE AREA	% TOTAL PLANT COVER
Mountain Shrub	45.3
Sagebrush	42.1
Douglas Fir	15.1
Mountain Grassland	43.6
Pinyon Juniper - West	12.8
Pinyon Juniper - East	32.5
Saltbush	17.5

RESULTS

1982 Topsoil Stockpile Reclamation. This reclaimed site is located to the north of the Refuse Test Plots and contains stockpiled topsoil materials which were originally placed in 1980. Additional topsoil materials were placed in this area in 1982. Only those portions placed in 1982 were sampled in this monitoring effort. A total of seven transects were sampled at this site to evaluate plant cover. Total plant cover on this site was found to average 36.14 percent (Table 1, Plateau 1982 Reclamation, Topsoil Stockpile Total Plant Cover). Sample adequacy at the ninety percent level on this site was found to equal 5.76 transects.

1982 Subsoil Stockpile Reclamation. This reclaimed site is located in a large draw to the northeast of the Coal Prep Plant. Materials deposited in this site were removed from the coal refuse expansion area in the southwest portion of the existing coal refuse pile. A total of five transects were evaluated in this area to determine the total plant cover characteristics of this site. The average total plant cover from this sampling effort was found to equal 23.60 percent (Table 2, Plateau 1982 Reclamation, Subsoil Stockpile Total Plant Cover).

DISCUSSION

1982 Topsoil Stockpile Reclamation. The undisturbed areas adjacent to this site largely correspond to the Sagebrush Plant Community. Sampling conducted on the Sagebrush Reference Area from the 1990 monitoring effort, yielded an average total plant cover value of 23.50 percent. Using this value as the apparent revegetation success standard, it can be concluded that the average cover of 36.14 percent sampled on this site during the 1992 monitoring effort would exceed the apparent revegetation success criteria. These data suggest that with respect to total plant cover, the revegetation efforts associated with the temporary reclamation seeding efforts on this site would apparently satisfy the total plant cover success standard. Revegetation efforts on this site can therefore be considered to be successful with respect to this parameter.

1982 Subsoil Stockpile Reclamation. When this total plant cover value is compared with the original plant cover data collected from the two reference areas corresponding to this site (Pinyon Juniper - West, 12.8 percent and Pinyon - Juniper East, 32.5 percent) the apparent total plant cover value for this site averages 22.7 percent. Since the present total plant cover value of 23.60 percent, exceeds the apparent revegetation success standard, it can be concluded that the revegetation efforts on this site can be considered to be successful with respect to total plant cover.

CONCLUSIONS

While both of the reclaimed areas sampled during the 1992 monitoring effort represent temporary reclamation efforts, both appear to be successful with respect to the parameter of total plant cover and erosion control. Indications are that both sites exceed the corresponding total plant cover values associated with the corresponding Reference Area plant cover values. Data collected during this monitoring effort suggests that using the reclamation practices associated with the Topsoil and Subsoil Stockpiles, it should be possible to achieve the total plant cover standard within the required ten year bond liability period. Since most of the previous reclamation which has been completed for the Plateau Mine area has been conducted on steep road slopes, these data obtained from conditions more representative of the practices associated with final reclamation, provide evidence that with proper regarding and reapplication of topsoil and subsoil, there is reason to believe that successful revegetation can be achieved on these kinds of sites at this location.

Table 1,

Plateau 1982 Reclamation, Topsoil Stockpile Total Plant Cover

Species	Transect (%)							Mean	% Comp
	1	2	3	4	5	6	7		
Perennial Grasses									
AGCR	6	10	10	9	12	15	7	9.86	27.27
AGIN	3	1	4	2	4	1	4	2.71	7.51
BRIN	3	1	0	0	0	0	0	0.57	1.58
POSA	2	0	0	1	0	0	0	0.43	1.19
ELJU	2	0	0	0	0	0	0	0.29	0.79
AGSM	0	1	0	0	0	0	0	0.14	0.40
ELSA	0	0	0	0	0	0	1	0.14	0.40
Subtotal	16	13	14	12	16	16	12	14.14	39.13
Perennial Forbs									
MESA	0	1	2	2	2	1	2	1.43	3.95
IVAX	0	0	0	0	0	0	2	0.29	0.79
Subtotal	0	1	2	2	2	1	4	1.71	4.74
Annual Forbs									
KOSC	17	1	21	24	14	15	11	14.71	40.71
SAKA	3	16	3	8	3	0	6	5.57	15.42
Subtotal	20	17	24	32	17	15	17	20.29	56.13
PLANT COVER	36	31	40	46	35	32	33	36.14	100
BARE	41	51	41	26	41	44	44	41.14	
LITTER	18	14	17	23	22	23	21	19.71	
ROCK	5	4	2	5	2	1	2	3.00	
TOTAL	100	100	100	100	100	100	100	99.99	
N = 7; Mean = 36.14; SD = 5.27; Nm 90/10 = 5.76									

Table 2,

Plateau 1982 Reclamation, Subsoil Stockpile Total Plant Cover

Species	Transect (%)					Total	Mean	% Comp
	1	2	3	4	5			
Perennial Grasses								
AGCR	11	4	3	4	4	26	5.20	22.03
AGIN	3	7	2	2	2	16	3.20	13.56
AGSM	0	4	0	0	2	6	1.20	5.08
BRIN	2	1	2	0	0	5	1.00	4.24
ELJU	0	2	2	0	0	4	0.80	3.39
SIHY	0	1	0	0	0	1	0.20	0.85
Subtotal	16	19	9	6	8	58	11.60	49.15
Perennial Forbs								
MESA	6	5	14	16	11	52	10.40	44.07
ERIOG	0	0	0	1	1	2	0.40	1.69
EREA	0	0	0	0	1	1	0.20	0.85
Subtotal	6	5	14	17	13	55	11.00	46.61
Annual Forbs								
SAKA	0	1	0	0	0	1	0.20	0.85
Shrubs								
CHNA	1	1	1	1	0	4	0.80	3.39
TOTAL PLANT	23	26	24	24	21	118	23.60	100
BARE	52	56	58	52	62	280	56.00	
LITTER	18	12	14	18	10	72	14.40	
ROCK	7	6	4	6	7	30	6.00	
TOTAL	100	100	100	100	100	500	100	
N = 5; Mean = 23.60; SD = 1.82; Mm 90/10 = 1.60								

Attachment A
Sediment Ponds Storage Capacities

Pond	Date	Depth of Water in Feet From Bottom of Pond	Elevation Of Water	Sediment Storage Capacity in A.F.	Sediment Storage Volume Used in %	Sediment Storage Volume Remaining in A.F.
TF1	12/15/92	2.9	8299.3	0.36	10	0.32
2	12/15/92	2.7	7713.7	1.92	23	1.48
3	12/15/92	6.1	8096.10	1.77	10	1.59
4	12/15/92	2.2	7309.1	0.44	50	0.22
5	12/15/92	0	DRY	2.42	29	1.72
6	12/15/92	1.6	7134.3	0.76	22	0.59
7	12/15/92	0	Dry	0.04	48	0.02
8	12/15/92	1.3	7047.2	1.10	5	1.05
9	12/15/92	3.1	7438.1	2.02	32	1.37

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April 6, 1992

CYPRUS WESTERN COAL COMPANY

(Formerly Cyprus Industrial Minerals Company; name changed effective August 26, 1985.)

Principal Operating Office: 9100 East Mineral Circle
Englewood, Colorado 80112

Telephone: 303/643-5000

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Incorporation:

State	Delaware
Date	February 12, 1982
Existence	Perpetual

Qualified to Do Business In: Colorado, Delaware, Utah

Ownership - Percentage: Cyprus Coal Company - 100%

IRS Identification Number: 36-3200083

OFFICERS:

Title	Name	Social Security #	Date Assumed Office
President	D. P. Brown	[redacted]	October 4, 1987
Senior Vice President	G. J. Malys	[redacted]	August 1, 1989
Senior Vice President and Secretary	K. Loughrey	[redacted]	December 10, 1990/October 4, 1987
Senior Vice President, Operation	D. E. Hudson	[redacted]	April 6, 1992
Senior Vice President, Sales and Marketing	G. E. Vajda	[redacted]	April 6, 1992
Vice President	K. H. Sieber	[redacted]	March 17, 1992
Vice President	R. W. Stucki	[redacted]	March 13, 1990
Vice President, Materials, Maintenance & Technical Resources	W. M. Hart	[redacted]	April 6, 1992
Vice President and Treasurer	D. C. Haugh	[redacted]	July 1, 1985
Vice President, Business Development, and Controller	J. Caffarelli	[redacted]	April 6, 1992
Vice President, General Counsel and Assistant Secretary	D. J. Friedman	[redacted]	December 10, 1990/July 1, 1985
Assistant Treasurer	F. S. Hakimi	[redacted]	July 31, 1987
Director of Tax	J. D. Flemming	[redacted]	April 6, 1992
Assistant Secretary	K. J. Gormley	[redacted]	September 22, 1986

DIRECTORS:

D. P. Brown	[redacted]	May 2, 1990
G. J. Malys	[redacted]	August 1, 1989
D. J. Friedman	[redacted]	December 10, 1990

Revised: 6/29/92

April 6, 1992

CYPRUS PLATEAU MINING CORPORATION

(formerly Plateau Mining Company; name changed effective June 8, 1987)

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OIL GAS & MINING

Mailing Address: P.O. Drawer PMC
Price, Utah 84501

Telephone: 805/637-2875

Incorporation:

State	Delaware
Date	August 26, 1982
Existence	Perpetual

Qualified to Do Business In: Delaware, Colorado, Utah

Ownership - Percentage: Cyprus Western Coal Company - 100%

IRS Identification Number: 95-3761213

OFFICERS:

Title	Name	Social Security #	Date Assumed Office
President	D. P. Brown	[redacted]	October 4, 1987
Senior Vice President	G. J. Malys	[redacted]	
Senior Vice President and Secretary	K. Loughrey	[redacted]	December 10, 1990/October 4, 1987
Senior Vice President, Operations	D. E. Hudson	[redacted]	April 6, 1992
Senior Vice President, Sales and Marketing	G. E. Vajda	[redacted]	April 6, 1992
Vice President and General Manager	K. H. Sieber	[redacted]	March 17, 1992
Vice President, Materials, Maintenance & Technical Resources	W. M. Hart	[redacted]	April 6, 1992
Vice President and Treasurer	D. C. Haugh	[redacted]	August 30, 1985
Vice President, Business Development, and Controller	J. Caffarelli	[redacted]	April 6, 1992
Vice President, General Counsel and Assistant Secretary	D. J. Friedman	[redacted]	December 10, 1990/August 30, 1985
Assistant Treasurer	F. S. Hakimi	[redacted]	July 31, 1987
Director of Tax	J. D. Flemming	[redacted]	April 6, 1992
Assistant Secretary	K. J. Gormley	[redacted]	September 22, 1986

DIRECTORS:

D. P. Brown	[redacted]	May 2, 1990
G. J. Malys	[redacted]	August 1, 1989
D. J. Friedman	[redacted]	December 10, 1990

Revised: 6/29/92

PRECIPITATION RECORD

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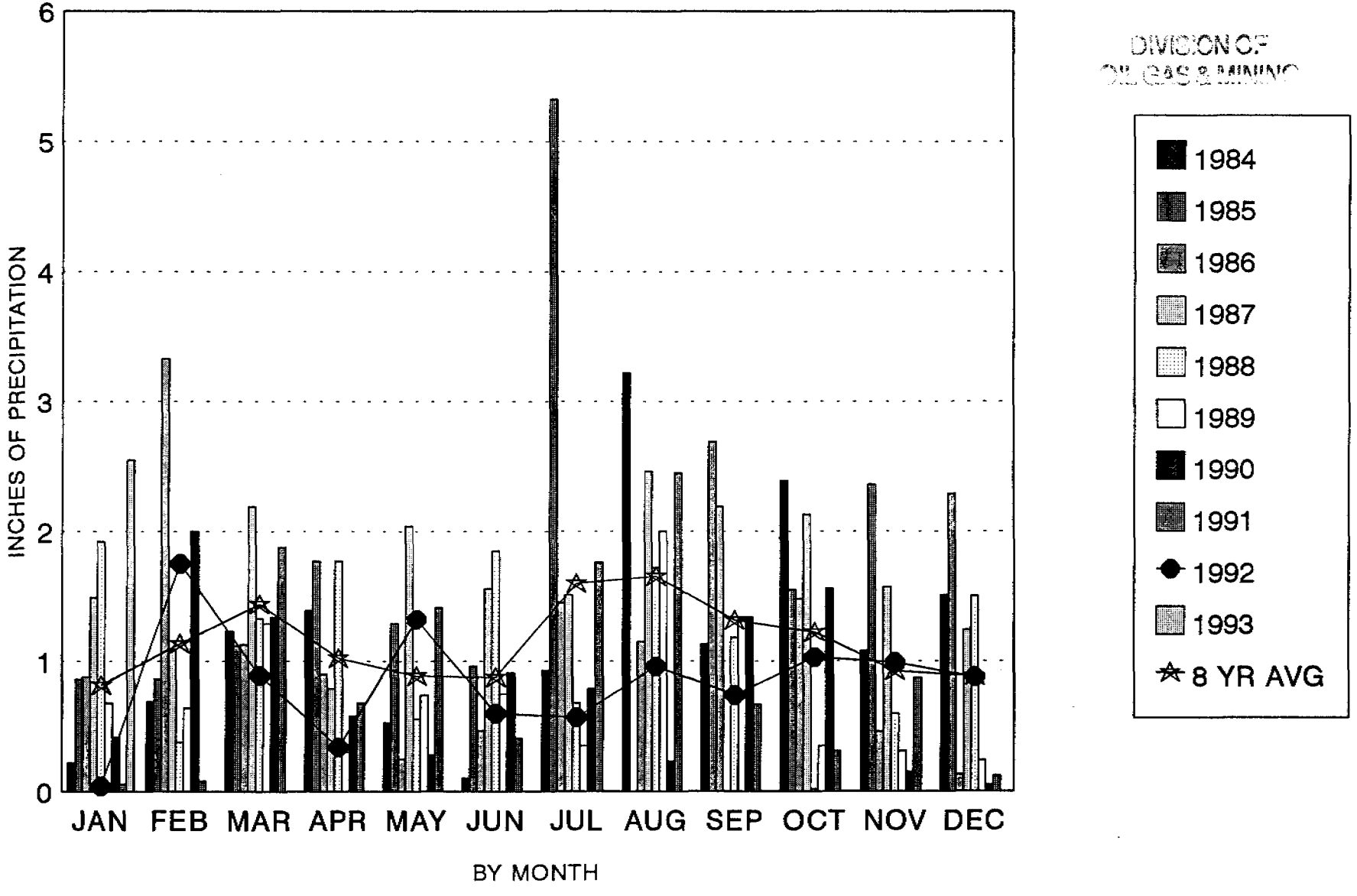

Temperature Chart 1992
Cyprus Plateau Mining Corp

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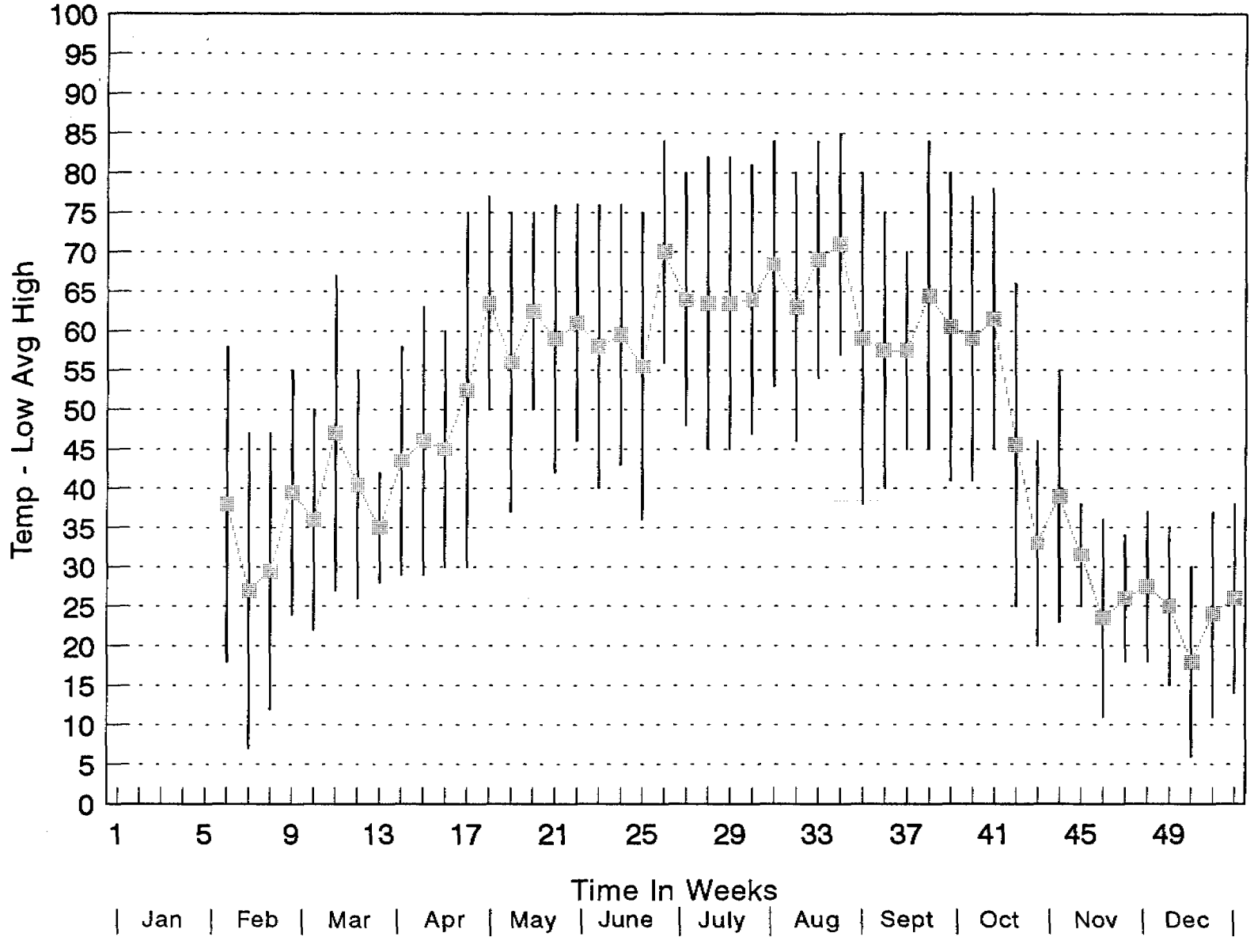
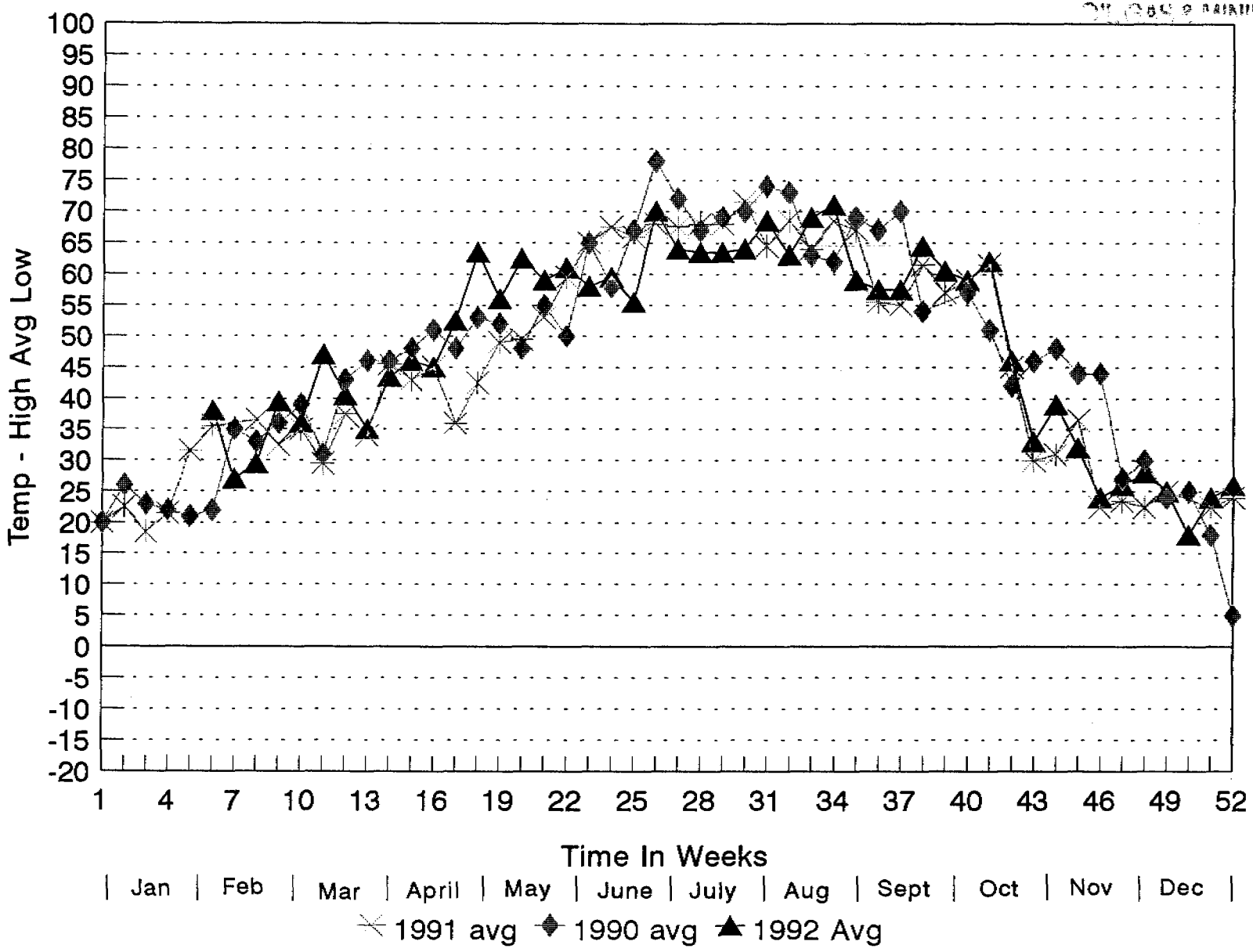


Temperature Chart 1990-1992 Comparison
Cyprus Plateau Mining Corp.

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