

August 24, 1994

Teri Davis
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
525 de Los Marquez
Santa Fe, NM 87502

Dear Ms. Davis:

On behalf of Public Service Company of New Mexico, we are transmitting preliminary sample logs for the following deep monitoring wells at Person Station:

PSMW 17-800
PSMW 19-800
PSMW 22-800
PSMW 17-Cluster
PSMW 19-Cluster
PSMW 22-Cluster

The upper 365 feet of the log for well PSMW 17-800 is believed to be less reliable than the others. The samples from this area were more homogeneous than those from the other wells, possibly because of heavy mud weight during drilling of this portion of the hole, which may have recirculated some of the cuttings.

If you have any questions concerning these logs, please contact us.

Sincerely,

METRIC CORPORATION



Gary L. Richardson, P.E.
Executive Vice President

GLR/rkh
Enclosures
cc: Ron Johnson w/enclosures

SAMPLE LOG

Borehole Number PSMW 22-Cluster Borehole Location N1465385.95 E383712.67
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 3-3-94 Ground Elev. 5106.86

Depth (feet)	Thickness (feet)	Stratigraphic Description
0 - 25.0	25.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to pebble gravel.
25.0 - 45.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to pebble gravel.
45.0 - 60.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to pebble gravel.
60.0 - 70.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine sand to small pebble gravel.
70.0 - 80.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded very fine to pebble gravel.
80.0 - 85.0	5.0	Pale yellowish brown (10 YR 6/2), medium sorted, subangular to subrounded, fine to coarse sand.

SAMPLE
Continued

Borehole Number PSMW 22-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
85.0 - 90.0	5.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, medium to coarse sand.
90.0 - 100.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to granule gravel with yellowish gray (5Y 7/2) clay.
100.0 - 105.0	5.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, medium to coarse sand.
105.0 - 125.0	20.0	Pale yellowish brown (10YR 6/2), medium sorted, subrounded, medium to very coarse sand.
125.0 - 130.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, medium sand to small pebble gravel.
130.0 - 135.0	5.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular to subrounded, medium to very coarse sand.
135.0 - 140.0	5.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular very coarse sand to small pebble gravel.
140.0 - 145.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to granule gravel.
145.0 - 160.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, clayey very fine to very coarse sand.
160.0 - 175.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to granule gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 22-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
175.0 - 180.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular, clayey very fine sand to small pebble gravel.
180.0 - 185.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine to very coarse sand.
185.0 - 220.0	35.0	Pale yellowish brown (10YR 6/2), medium sorted, subrounded, fine to coarse sand.
220.0 - 225.0	5.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, coarse to very coarse sand.
225.0 - 240.0	15.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, coarse sand to granule gravel.
240.0 - 245.0	5.0	Pale yellowish brown (10YR 6/2), clayey very fine to coarse sand.
245.0 - 250.0	5.0	Pale yellowish brown (10YR 6/2), well sorted, subangular to subrounded, small pebble gravel.
250.0 - 260.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to pebble gravel.
260.0 - 275.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, clayey very fine sand to granule gravel.
275.0 - 280.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to granule gravel.
280.0 - 290.0	10.0	Pale yellowish brown (10YR 6/2) clay.

SAMPLE LOG
Continued

Borehole Number PSMW 22-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
290.0 - 310.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, clayey very fine sand to granule gravel.
310.0 - 345.0	35.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
345.0 - 355.0	10.0	Grayish orange (10YR 7/4), sandy clay.
355.0 - 390.0	35.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
390.0 - 405.0	15.0	Grayish orange (10YR 7/4), sandy clay.
405.0 - 420.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
420.0 - 450.0	30.0	Grayish orange (10YR 7/4), sandy clay.
450.0 - 480.0	30.0	Very pale orange (10YR 8/2), poorly sorted, subangular to subrounded, very fine sand to very coarse sand.
480.0 - 520.0	40.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine sand to coarse sand.
520.0 - 550.0	30.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to granule gravel.
550.0 - 560.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 22-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
560.0 - 585.0	25.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
585.0 - 605.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
605.0 - 725.0	120.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine to very coarse sand.
725.0 - 740.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
740.0 - 770.0	30.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
770.0 - 800.0	30.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
800.0 - 820.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
820.0 - 825.0	5.0	Moderate yellowish brown (10YR 5/4), sandy clay.
825.0 - 835.0	10.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
835.0 - 845.0	10.0	Moderate yellowish brown (10YR 5/4), sandy clay.

SAMPLE LOG
Continued

Borehole Number PSMW 22-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
845.0 - 875.00	30.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
875.0 - 880.0	5.0	Moderate yellowish brown (10YR 7/4), sandy clay.
880.0 - 900.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
900.0 - 910.0	10.0	Moderate yellowish brown (10YR 5/4), sandy clay.
910.0 - 920.0	10.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subround, clayey very fine sand to granule gravel.
920.0 - 935.0	15.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, fine to medium sand, with some very coarse sand.
935.0 - 940.0	5.0	Grayish orange (10YR 7/4), well sorted, subrounded, coarse and very coarse sand.

SAMPLE LOG

Borehole Number PSMW 19-Cluster Borehole Location N1464929.84 E383747.13
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 11-11-93 Ground Elev. 5115.27

Depth (feet)	Thickness (feet)	Stratigraphic Description
0.0 - 30.0	30.0	Pale yellowish brown (10YR 6/2), medium sorted, angular to subangular, very coarse sand to small pebble gravel.
30.0 - 40.0	10.0	Grayish orange (10YR 7/4), poorly sorted, angular, clayey very fine sand to small pebble gravel.
40.0 - 45.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular, medium sand to small pebble gravel.
45.0 - 55.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular to subangular, very fine sand to small pebble gravel.
55.0 - 65.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, coarse sand to small pebble gravel, with some clay flecks.
65.0 - 80.0	15.0	Very pale orange (10YR 8/2), poorly sorted, subangular, clayey very fine sand to small pebble gravel.
80.0 - 95.0	15.0	Yellowish gray (5Y 7/2), clay with some small pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 19-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
95.0 - 100.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to small pebble gravel.
100.0 - 110.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular to subangular, clayey very fine sand to small pebble gravel.
110.0 - 120.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to small pebble gravel.
120.0 - 140.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel with some small pebble gravel.
140.0 - 160.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
160.0 - 165.0	5.0	Grayish orange (10YR 7/4), clay with some granule gravel.
165.0 - 180.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
180.0 - 190.0	10.0	Pale yellowish brown (10YR 6/2) clay with some granule gravel.
190.0 - 205.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine sand to very coarse sand, with some granule gravel.
205.0 - 215.0	10.0	Pale yellowish brown (10YR 6/2) clay with some granule gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 19-Cluster

Depth (ft)	Thickness (ft)	Stratigraphic Description
215.0 - 260.0	45.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded. Fine sand to granule gravel.
260.0 - 275.0	15.0	Very pale orange (10YR 8/2), clay.
275.0 - 300.0	25.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, clayey very fine sand to very coarse sand, with some granule gravel.
300.0 - 320.0	20.0	Pale yellowish brown (10YR 6/2), clay.
320.0 - 340.0	20.0	Very pale orange (10YR 8/2), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
340.0 - 345.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, very fine to very coarse sand, with some granule gravel.
345.0 - 380.0	35.0	Grayish orange (10YR 7/4), clay.
380.0 - 400.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand, with some granule gravel.
400.0 - 410.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to granule gravel.
410.0 - 420.0	10.0	Very pale orange (10YR 8/2), poorly sorted subrounded, clayey very fine sand to granule gravel.
420.0 - 435.0	15.0	Grayish orange (10YR 7/4) clay.

SAMPLE LOG
Continued

Borehole Number PSMW 19-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
435.0 - 460.0	25.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine to very coarse sand.
460.0 - 475.0	15.0	Grayish orange (10YR 7/4) clay.
475.0 - 480.0	5.0	Grayish orange (10YR 7/4), poorly sorted, subangular, very fine to very coarse sand.
480.0 - 490.0	10.0	Grayish orange (10YR 7/4) clay.
490.0 - 510.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine to very coarse sand.
510.0 - 520.0	10.0	Grayish orange (10YR 7/4) clay.
520.0 - 540.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine sand to very coarse sand.
540.0 - 560.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine to coarse sand, with some granule gravel.
560.0 - 615.0	55.0	Very pale orange (10YR 8/2), poorly sorted, subangular to subrounded, very fine to coarse sand, with some granule gravel.
615.0 - 790.0	175.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.

SAMPLE LOG
Continued

Borehole Number PSMW 19-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
790.0 - 800.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine to very coarse sand.
800.0 - 805.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine sand to granule gravel.
805.0 - 820.0	15.0	Pale yellowish brown (10Yr 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
820.0 - 845.0	25.0	Grayish orange (10YR 7/4), sandy clay, with some very coarse sand and granule gravel.
845.0 - 900.0	55.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.

SAMPLE LOG

Borehole Number PSMW 17-Cluster Borehole Location N1465193.14 E383127.38
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 5-16-94 Ground Elev. 5071.51

Depth (ft)	Thickness (ft)	Stratigraphic Description
0.0 - 10.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to very coarse sand.
10.0 - 25.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to granule gravel.
25.0 - 40.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to small pebble gravel.
40.0 - 44.0	4.0	Grayish orange (10YR 7/4), sandy clay.
44.0 - 60.0	16.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to small pebble gravel.
60.0 - 67.0	7.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to small pebble gravel.
67.0 - 75.0	8.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to small pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 17-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
75.0 - 87.0	12.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine to very coarse sand.
87.0 - 95.0	8.0	Grayish orange (10YR 7/4), sandy clay.
95.0 - 110.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to very coarse sand.
110.0 - 130.0	20.0	Grayish orange (10YR 7/4), sandy clay.
130.0 - 147.0	17.0	Grayish orange (10YR 7/4), poorly sorted, very fine sand to coarse sand.
147.0 - 185.0	38.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine to very coarse sand.
185.0 - 193.0	8.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to small pebble gravel.
193.0 - 205.0	12.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
205.0 - 220.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
220.0 - 280.0	60.0	Grayish orange (10Yr 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
280.0 - 295.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine to very coarse sand.

SAMPLE LOG
Continued

Borehole Number PSMW 17-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
295.0 - 305.0	10.0	Grayish orange (10YR 7/4), sandy clay.
305.0 - 335.0	30.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
335.0 - 350.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular, fine sand to granule gravel.
350.0 - 370.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine sand to very coarse sand.
370.0 - 440.0	70.0	Grayish orange (10YR 7/4), sandy clay.
440.0 - 463.0	23.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
463.0 - 480.0	17.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to very coarse sand.
480.0 - 505.0	25.0	Very pale orange (10YR 8/2), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand, with some granule gravel.
505.0 - 520.0	15.0	Very pale orange (10YR 8/2), sandy clay.
520.0 - 550.0	30.0	Grayish orange (10YR 7/4), Sandy clay.
550.0 - 590.0	40.0	Grayish orange (10YR 7/4), poorly sorted, subrounded, clayey very fine sand to very coarse sand.
590.0 - 603.0	13.0	Grayish orange (10YR 7/4) sandy clay.

SAMPLE LOG
Continues

Borehold Number PSMW 17-Cluster

Depth (feet)	Thickness (feet)	Stratigraphic Description
603.0 - 685.0	82.0	Grayish orange (10 YR 7/4), poorly sorted, subangular to subrounded, clayey very fine to coarse sand.
685.0 - 720.0	35.0	Grayish orange (10YR 7/4), sandy clay.
720.0 - 745.0	25.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to coarse sand.
745.0 - 760.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular strong clayey very fine sand to coarse sand.
790.0 - 839.0	49.0	Grayish orange (10YR 7/4), sandy clay.
839.0 - 863.0	24.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to coarse sand.
863.0 - 900.0	37.0	Grayish orange (10YR 7/4), sandy clay.

SAMPLE LOG

Borehole Number PSMW 22-800 Borehole Location N1465341.04 E383709.11
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 3-5-93 Ground Elev. 5106.16

Depth (feet)	Thickness (feet)	Stratigraphic Description
0 - 5.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to pebble gravel.
5.0 - 15.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine sand to granule gravel, with some pebble gravel.
15.0 - 20.0	5.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular to subrounded, fine to coarse sand, with a few very coarse sand.
20.0 - 30.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to small pebble gravel.
30.0 - 40.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, medium sand to granule gravel, with some small pebble gravel.
40.0 - 80.0	40.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to small pebble gravel.
80.0 - 85.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, very fine sand to granule gravel, with some small pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW-22-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
85.0 - 110.0	25.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, clayey very fine sand to granule gravel.
110.0 - 120.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, slightly clayey medium to very coarse sand.
120.0 - 125.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, coarse sand to granule gravel.
125.0 - 130.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, clayey fine sand to granule gravel.
130.0 - 145.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, fine sand to granule gravel, and moderate orange pink (5YR 8/4) clay.
145.0 - 185.0	40.0	Moderate orange pink (5YR 8/4) sandy clay with granule gravel.
185.0 - 200.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, fine sand to granule gravel, with some moderate orange pink (5YR 8/4) clay.
200.0 - 205.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel, clayey with some pebble gravel.
205.0 - 225.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to pebble gravel.
225.0 - 240.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel with some pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW-22-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
240.0 - 245.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
245.0 - 250.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, clayey very fine sand to granule gravel.
250.0 - 275.0	25.0	Very pale orange (10YR 8/2), sandy clay with granule gravel.
275.0 - 280.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine sand to granule gravel.
280.0 - 290.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, clayey very fine sand to pebble gravel.
290.0 - 340.0	50.0	Very pale orange (10YR 8/2), sandy clay with granule gravel.
340.0 - 350.0	10.0	Moderate orange pink (5YR 8/4), sandy clay with granule gravel.
350.0 - 365.0	15.0	Moderate orange pink (5YR 8/4), sandy clay with very coarse sand, some granule gravel.
365.0 - 370.0	5.0	Moderate orange pink (5YR 8/4), sandy clay with granule gravel.
370.0 - 380.0	10.0	Moderate orange pink (5YR 8/4), poorly sorted, subangular to subrounded, clayey fine sand to granule gravel, with some sandy clay present.
380.0 - 390.0	10.0	Very pale orange (10YR 8/2), sandy clay with very coarse sand.

SAMPLE LOG
Continued

Borehole Number PSMW-22-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
390.0 - 395.0	5.0	Pale yellowish brown (10YR 6/2), medium sorted, subrounded, medium to very coarse sand.
395.0 - 400.0	5.0	Pale yellowish brown (10YR 6/2), sandy clay with granule gravel.
400.0 - 420.0	20.0	Moderate orange pink (5YR 8/4), sandy clay with very coarse sand.
420.0 - 430.0	10.0	Grayish orange (10YR 7/4), sandy clay with very coarse sand.
430.0 - 440.0	10.0	Grayish orange (10YR 7/4), sandy clay with granule gravel.
440.0 - 460.0	20.0	Grayish orange (10YR 7/4) sandy clay.
460.0 - 515.0	55.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
515.0 - 530.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, medium sand to granule gravel with clay.

SAMPLE LOG
Continued

Borehole Number PSMW-22-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
530.0 - 550.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
550.0 - 560.0	10.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular, medium to very coarse sand.
560.0 - 580.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
580.0 - 595.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
595.0 - 605.0	10.0	Grayish orange (10YR 7/4) sandy clay.
605.0 - 620.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
620.0 - 745.0	125.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
745.0 - 760.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
760.0 - 761.0	1.0	Grayish orange (10YR 7/4), clay.
761.0 - 772.0	11.0	Grayish orange (10YR 7/4), sandy clay.

SAMPLE LOG
Continued

Borehole Number PSMW-22-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
772.0 - 795.0	23.0	Pale yellowish brown (10YR 6/2), medium sorted, subrounded, medium to very coarse sand, with some granule gravel.
795.0 - 800.0	5.0	Grayish orange (10YR 7/4), sandy clay.

SAMPLE LOG

Borehole Number PSMW 19-800 Borehole Location N1464900.03 E383726.55
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 3-26-93 Ground Elev. 5116.48

Depth (ft)	Thickness (ft)	Stratigraphic Description
0.0 - 30.0	30.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, fine sand to small pebble gravel.
30.0 - 35.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to granule gravel.
35.0 - 80.0	45.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to small pebble gravel.
80.0 - 95.0	15.0	Yellowish gray (5Y 7/2), clay.
95.0 - 100.0	5.0	Yellowish gray (5Y 7/2), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
100.0 - 110.0	10.0	Yellowish gray (5Y 7/2) clay.
110.0 - 120.0	10.0	Pale yellowish brown (10YR 6/2), medium sorted, coarse sand to small pebble gravel.
120.0 - 135.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 19-800

Depth (ft)	Thickness (ft)	Stratigraphic Description
135.0 - 140.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to small pebble gravel.
140.0 - 165.0	25.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to small pebble gravel.
165.0 - 175.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
175.0 - 185.0	10.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
185.0 - 190.0	5.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular to subrounded, medium to very coarse sand, with some granule gravel.
190.0 - 210.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
210.0 - 220.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
220.0 - 235.0	15.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, medium sand to granule gravel.
235.0 - 245.0	10.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular, very coarse sand to small pebble gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 19-800

Depth (ft)	Thickness (ft)	Stratigraphic Description
245.0 - 260.0	15.0	Very pale orange (10YR 8/2), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel, with some small pebble gravel.
260.0 - 270.0	10.0	Very pale orange (10YR 8/2), sandy clay.
270.0 - 280.0	10.0	Grayish orange (10YR 7/4) and grayish orange pink (5YR 7/2) mixed, sandy clay.
280.0 - 305.0	25.0	Grayish orange (10YR 7/4), sandy clay.
305.0 - 355.0	50.0	Very pale orange (10YR 8/2), sandy clay.
355.0 - 365.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.
365.0 - 375.0	10.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
375.0 - 380.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
380.0 - 485.0	105.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
485.0 - 500.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
500.0 - 505.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular, very fine sand to granule gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 19-800

Depth (ft)	Thickness (ft)	Stratigraphic Description
505.0 - 520.0	15.0	Light brown (5YR 6/4), clay.
520.0 - 530.0	10.0	Grayish orange (10YR 7/4), clay.
530.0 - 545.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
545.0 - 580.0	35.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
580.0 - 595.0	15.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular to subrounded, medium to very coarse sand.
595.0 - 620.0	25.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, very fine sand to very coarse sand.
620.0 - 670.0	50.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine sand to very coarse sand.
670.0 - 700.0	30.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to very coarse sand.
700.0 - 705.0	5.0	Light brown (5YR 6/4), sandy clay.
705.0 - 745.0	40.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine sand to very coarse sand.
745.0 - 770.0	25.0	Grayish orange (10YR 7/4), sandy clay.
770.0 - 790.0	20.0	Pale yellowish brown (10YR 6/2), well sorted, subrounded, medium and coarse sand.

SAMPLE LOG
Continued

Borehole Number PSMW 19-800

Depth (ft)	Thickness (ft)	Stratigraphic Description
790.0 - 800.0	10.0	Pale yellowish brown (10YR 6/2), medium sorted, subrounded, medium to very coarse sand.

SAMPLE LOG

Borehole Number PSMW 17-800 Borehole Location N1465164.55 E383173.88
Property Owner Public Service Company of New Mexico
Sample Logger Phil Berry - METRIC Corporation
Driller Rodgers & Company, Inc.
Drilling Medium Rotary Mud

Date of Completion 8-11-93 Ground Elev. 5073.81

Depth (feet)	Thickness (feet)	Stratigraphic Description
0.0 - 60.0	60.0	Pale yellowish brown (10YR 6/2), medium sorted, angular to subangular, coarse sand to granule gravel, with some pebble gravel.
60.0 - 80.0	20.0	Pale yellowish brown (10YR 6/2), medium sorted, angular, very coarse sand to small pebble gravel.
80.0 - 140.0	60.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular to subangular, coarse sand to small pebble gravel, with small grayish orange (10YR 7/4) clay flecks.
140.0 - 160.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded. Fine sand to granule gravel, with some small pebble gravel.
160.0 - 165.0	5.0	Pale yellowish brown (10YR 6/2), poorly sorted, angular to subangular, coarse sand to small pebble gravel.
165.0 - 210.0	45.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to granule gravel.

SAMPLE LOG
Continued

Borehold Number PSMW 17-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
210.0 - 240.0	30.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand to pebble gravel.
240.0 - 365.0	125.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine to very coarse sand, with some granule gravel.
365.0 - 400.0	35.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
400.0 - 420.0	20.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine sand to granule gravel.
420.0 - 430.0	10.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
430.0 - 435.0	5.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, fine sand to granule gravel.
435.0 - 460.0	25.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to granule gravel.
460.0 - 480.0	20.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine sand, to very coarse sand, with some granule gravel.
480.0 - 485.0	5.0	Grayish orange (10YR 7/4), poorly sorted, subangular, clayey very fine to very coarse sand.
485.0 - 540.0	55.0	Pale yellowish brown (10YR 6/2), poorly sorted, subangular to subrounded, fine to very coarse sand, with some granule gravel.

SAMPLE LOG
Continued

Borehole Number PSMW 17-800

Depth (feet)	Thickness (feet)	Stratigraphic Description
540.0 - 545.0	5.0	Grayish orange (10YR 7/4), sandy clay.
545.0 - 620.0	75.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, clayey very fine sand to very coarse sand.
620.0 - 670.0	50.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, very fine to very coarse sand.
670.0 - 700.0	30.0	Pale yellowish brown (10YR 6/2), poorly sorted, subrounded, fine to very coarse sand.
700.0 - 725.0	25.0	Grayish orange (10YR 7/4), poorly sorted, subrounded, very fine sand to very coarse sand.
725.0 - 740.0	15.0	Pale yellowish brown (10YR 6/2), medium sorted, subangular to subrounded, medium to very coarse sand.
740.0 - 755.0	15.0	Grayish orange (10YR 7/4), poorly sorted, subangular to subrounded, fine to very coarse sand.

MONITORING WELL LOCATIONS PROPOSED FOR
STEP THREE OF THE DEEP PLUME INVESTIGATION
AT PUBLIC SERVICE COMPANY OF NEW MEXICO
PERSON GENERATING STATION
NMT360010342

Introduction

In accordance with steps one and two outlined in "Investigatory Approach for Characterization of the Horizontal and Vertical Extent of the Deep Plume at PNM Person Generating Station" dated May 21, 1993, three monitoring wells (PSMW-17-800, PSMW-19-800 and PSMW-22-800) have been completed in the 800 feet deep zone and multiple completion wells at three locations (PSMW-17-cluster, PSMW-19-cluster and PSMW-22-cluster) have been completed (see FIGURE 1). The data obtained from these six wells tends to confirm that deep contaminant plumes exist at the Person Station Site, and the source of the plumes was vertically downward flow through the well bores of production wells PSPW-3 and PSPW-6 from the shallow volatile organic plume.

PCE and DCE were found at the PSMW-19 location and the PSMW-22 location. No contamination was detected at the PSMW-17 location. The following table summarizes the findings:

Location	Zone Depth	PCE (ppb)	DCE (ppb)
PSMW-19	500	6.7-7.4	15-16
PSMW-19	800	0.7-5.4	0.6-7.7
PSMW-22	800	0.6-3.0	0.6-2.3

The data from these wells suggest a need for additional monitoring wells down gradient from production wells PSPW-3 and PSPW-6 in the 500' and 800' deep zones.

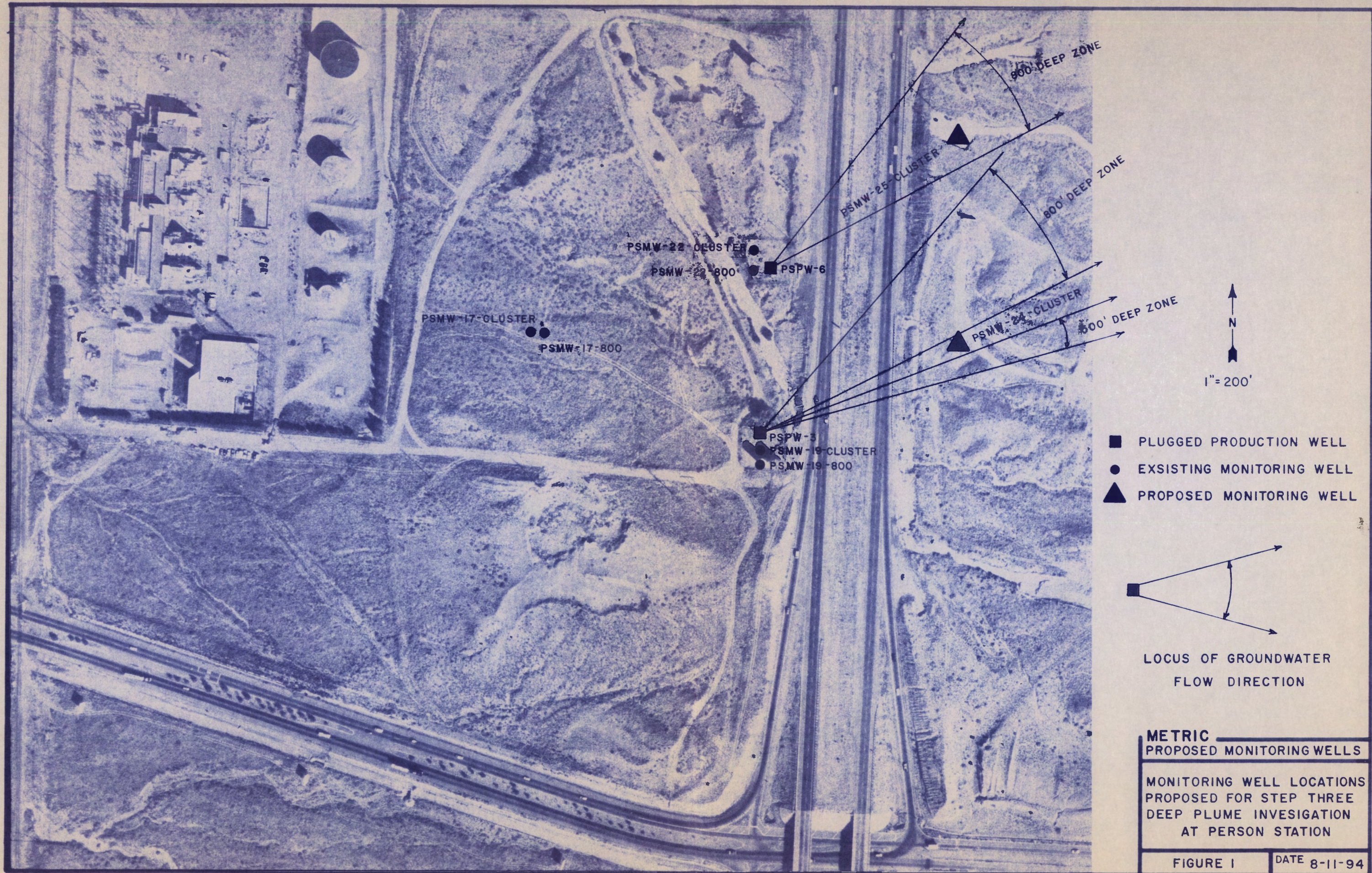
The locus of groundwater flow direction in 800' deep zone, based on about one year of data, is shown on FIGURE 1. Likewise the locus of groundwater flow direction in the 500' deep zone, based on about two months of data, is shown on FIGURE 1.

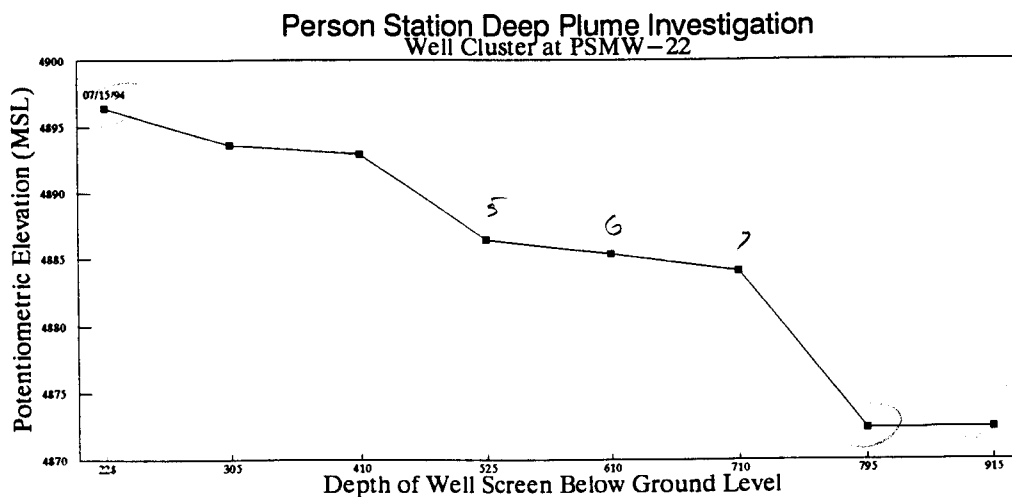
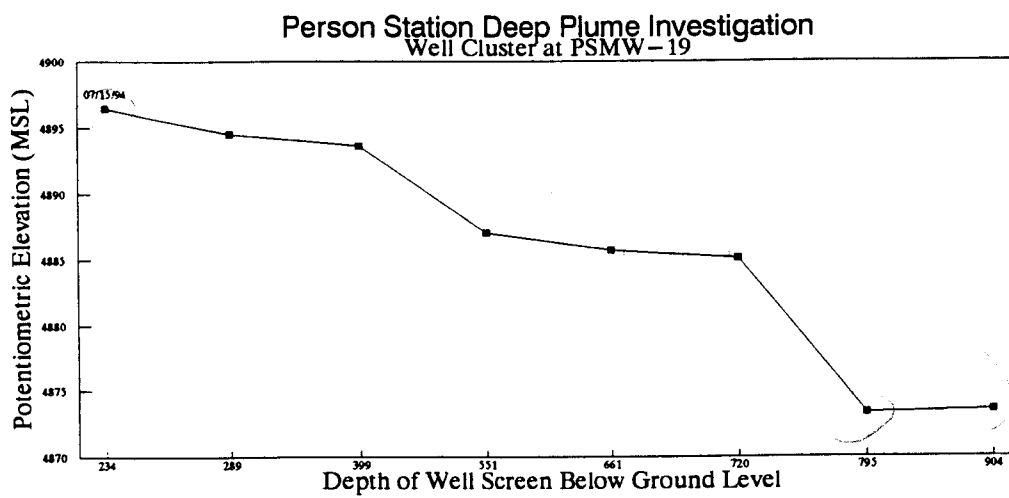
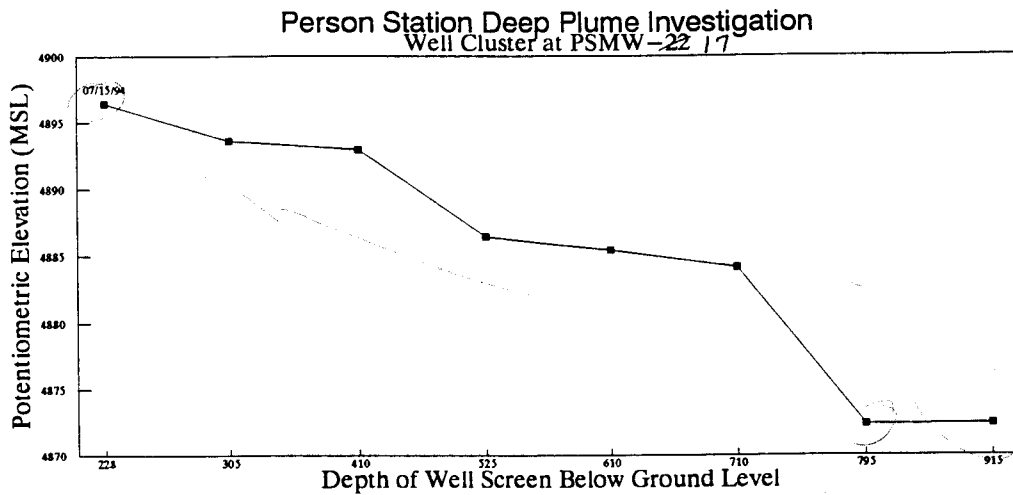
Proposed Step Three Wells

In Order to further define the horizontal and vertical extent of the plumes at the 500' and 800' levels, two multiple completion wells are proposed. PSMW-24-cluster (See FIGURE 1) is located about 500 feet down gradient from PSPW-3 which is the nearest accessible location to the source assuming that drilling on the I-25 right-of-way is unacceptable from a safety and liability perspective. PSMW-25-cluster is located about 500 feet down gradient from PSPW-6 which is the nearest accessible location to the source again assuming that the I-25 right-of-way is inaccessible.

Each cluster would contain individual wells screened at the 400, 500, 600, 700, 800 and 900 feet levels thereby monitoring and bracketing the 500 and 800 feet levels. The two cluster wells would be constructed generally as described in the "Investigatory Approach for Characterization of the Horizontal and Vertical Extent of the Deep Plume at PNM Person Generating Station" dated May 21, 1993. Modifications to the previous cluster well design include:

- Increase borehole from 12 1/4" to 15" dia.
- Increase spacer rings from 4 1/5" to 6 5/8" dia.
- Replace 2% Bentonite Cement between screened intervals with 50% Benseal - 50% 10-20 sand mixture.





Public Service Company of New Mexico

TELECOPIER COVER SHEET

DATE: 12/19/94TO: Teri DavesHRMBFROM: Ren JohnsonNUMBER OF PAGES TRANSMITTED INCLUDING COVER SHEET: 7TELECOPIER USED: MURATA M2000 - HQ 4TH FLOORTELEPHONE VERIFICATION NUMBER: (505) 848-2340

COMMENTS:

received 8/19/94

-Unit temporarily shut down
08/25/94 to re-size GAC unit(s).

-Unit resumed operation on
09/22/94.

-Unit shut down 11/22/94 to
evaluate data, probably won't
re-start system till early 1995.

- | | | |
|--|-----------------|-------------------------|
| <p>3. Modification of PSMW-16 to pump
and treat well:
-Well retrofitted with submersible
pump and pitless adaptor on
08/23/94.</p> | <p>08/22/94</p> | <p>08/22/94</p> |
| <p>4. Air Stripper System Installation:
-Building plans for small building
submitted to State for approval.
-Groundbreaking on building
started 08/29/94.
-Start-up test of system conducted
11/21/94 and 11/22/94 (test water
will be held on site during test)</p> | <p>07/18/94</p> | <p>-- 08/29/94</p> |
| <p>5. Golf course piping:
-Pulled piping completed 11/18/94,
-Jack and Bore under I-25:
(Triad Construction) First boring hole
aborted and backfilled due to failure
of steering device on 12/7. New hole
to be started week of 12/12. Bored
350 feet of 18 inch sleeve hole during
week of 12/12.
-Trenched pipe on golf course:
(Henderson Construction) Laid 700
feet of trench and pipe week of 12/5.
Hydrostatic testing and backfill
occurred week of 12/12. Waiting
on completion of highway piping,
working on pond discharge outfall.</p> | <p>08/15/94</p> | <p>11/07/94</p> |
| <p>Full System in Operation:</p> | <p>10/03/94</p> | <p>January 23, 1995</p> |

currently revising the draft risk assessment document to incorporate raised by the HRMB in their latest comment letter. On August 22, 1994, PNM received a letter from HRMB approving the risk assessment "framework" and requesting submittal of the draft risk assessment within 30 days of receipt of the letter. PNM submitted the draft Risk Assessment to the HRMB for their review on September 19, 1994. The HRMB mailed a letter to PNM on November 7, 1994 which concurred with the findings of the risk assessment. ES subsequently produced a final document which will be forwarded to the HRMB. This document is 100% complete.

8. Engineering Design Specifications: 100 % Complete.

Design specifications are needed for the construction of the water delivery system, air stripper system, and vapor extraction system. These designs are used in the preparation of bids by contractors and in the installation of the system during construction. Engineering Science Inc. is responsible for preparing the engineering specifications. PNM has completed specifications for all systems. Specifications have been supplied to potential contractors.

9. Sampling of UNM Golf Course Reservoirs. 100 % Complete

Because of the indemnification language in the water agreement (see item 3, above) METRIC Corporation, under contract to PNM, will conduct water and sediment sampling of two UNM Championship Golf Course reservoirs prior to PNM sending any water to them. This data will provide a baseline for any future sampling/analysis. This sampling was conducted December 1, 1994. Results are pending.

10. Construction: In progress.

Once engineering specifications are complete, bid packages can be conveyed to contractors for bidding or award. PNM selected Henderson Construction Company as the general contractor for building construction and equipment installation. Current contractor's time line is attached. Status of individual components of construction is as follows:

<u>Item</u>	<u>Scheduled Start Date</u>	<u>Revised Start Date</u>	<u>Actual Start Date</u>
1. New well installation (through cap): -VEW completed 08/01/94	07/28/94	--	07/28/94
2. Vapor Extraction System Installation: -Vacuum unit received 08/10/94 -GAC unit ordered 8/11/94,	07/31/94	08/22/94	08/23/94

is obtained.

5. NMED Discharge Plan: In progress.

An NMED Groundwater Discharge plan will be needed to use treated water for irrigation purposes at the UNM golf course. PNM discussed this with the Groundwater Bureau Chief (Marcie Levitt) who confirmed that a discharge plan with the NMED Groundwater Bureau would be required. METRIC Corporation has prepared the plan. The NMED Groundwater Bureau will require that the UNM agreement (see above) be finalized before discharge occurs. PNM filed the discharge plan on June 13, 1994. The discharge plan was to be public noticed (as discharge plan 1006) on or before July 18, 1994 for a 30 day public comment period. No comments were received from the public notice. A discharge plan will be approved contingent on the successful completion of an agreement with UNM on water acceptance, and an approval of the Risk Assessment by the NMED HRMB. These items were forward to the NMED Groundwater Bureau the week of November 28, 1994. The NMED Groundwater Bureau has notified PNM that the discharge plan will be issued by January 15, 1995.

6. Health and Safety Plan: 100 % Complete.

A draft health and safety plan (HASP) for the installation and operation of the CAP was submitted to the NMED as part of the Corrective Measures Proposal in November 1993. Engineering Science, Inc. (ES) provided PNM a second draft of the document on June 6, 1994. It has been reviewed by PNM's industrial hygienist who has recommended a few changes. These changes have been incorporated into the document by ES. This document was forwarded to the NMED HRMB the week of July 25, 1994. This document is 100% complete.

7. Risk Assessment: 100 % Complete.

In its December 1993 comments on the Corrective Measures Proposal, the NMED requested that PNM conduct a baseline risk assessment (RA) for the Person Station contaminant plume. PNM, Engineering Science, Inc.(ES), and the NMED met on February 4, 1994 to discuss the proposed risk assessment. ES prepared a "framework" document for the RA which was submitted to the NMED on February 14, 1994. The NMED commented on the framework document in a letter dated March 8, 1994. ES revised the framework document and PNM resubmitted it to the NMED for approval / concurrence on April 5, 1994. The NMED further commented on the framework document in a letter dated July 6, 1994. ES has revised the framework document and it was mailed to the NMED on July 29, 1994. ES is

Permit issued by APCD on March 16, 1994. PNM noticed two typographical errors in permit and requested APCD to correct. PNM received corrected permit on May 4, 1994. Made 30 day startup notification to the Division on July 26, 1994. Notified Division on August 26, that breakthrough had occurred on GAC unit, and that system was shut down pending replacement of GAC unit.

2. NMED RCRA Permit Modification: 100% Complete.

A RCRA permit modification for permit NMT360010342 is needed to allow PNM to install the vapor extraction well through the concrete cap over the permitted disposal unit (other modifications relating to the ground water monitoring program are included in the permit modification). PNM requested the permit modification in letters dated September 14, 1993 and October 8, 1993. The NMED issued a public notice for the permit modification on March 18, 1994. PNM received the approved permit modification on June 10, 1994.

3. Right of Way (ROW) Agreements: 100% Complete

A ROW agreement for placement of pipeline beneath State of New Mexico Highway Department land is needed to convey the treated water from Person Station to the UNM golf course. PNM ROW agents have been meeting with and providing information to NM Highway Department representatives regarding this issue. Agreement is with the Highway Department. PNM was notified on May 26, 1994 that the permit would not be issued as submitted. The permit request was modified so that all excavation activities occur outside of the highway access control zone, and was resubmitted to the Highway Department on June 2, 1994. The permit was issued on June 16, 1994. This agreement is 100% complete.

A ROW agreement for trenching of pipeline across UNM golf course property and an agreement for acceptance of the treated water by UNM is needed to convey the treated water from Person Station to the UNM golf course. PNM personnel (including ROW agents, engineers, and attorneys) have been working with UNM personnel on finalization of the agreement. The final agreement was signed by PNM on October 28, 1994 and was signed by UNM the week of 11/14/94. PNM received the agreement back on 11/23/94. This agreement is 100% complete.

4. Water Rights Modification: In progress

The above agreement for delivery of the treated ground water to UNM specifies that the pumped ground water is assigned to water rights controlled by PNM. To facilitate this, PNM must receive approval from the State Engineer for a new point of diversion for the water. PNM is in the process of filing an application to the State Engineer. It is likely that pumping can proceed before final State Engineer approval

Thursday 12/15. PSMW-24-600: Installed packer, bladder pump, and sounding tube.

Thursday 12/15. PSMW-25-Cluster: Continued well installation, sorted 2 inch stainless steel casing into bundles, mixed new mud.

5. Friday 12/16. PSMW-24-Cluster: Installed guard posts.

Friday 12/16. PSMW-25-Cluster: Continued well installation, began installation of 2 inch casing pipe: installed from 942 feet to 709 feet (including 0.020 inch screen) of 25-900, installed from 827 feet to 709 feet (including 0.025 inch screen) of 24-800. Secured well, removed rotary rig from site.

(12/12/94 thru 12/16/94): Soil vapor extraction system shut down to evaluate data collected to date.

Work Scheduled for December 19, 1994 through December 23, 1994

1. Pump and Treat System:

a. Start up testing complete, system shut down till early next year (January 23, 1995) when it will be re-started for full operation.

b. Continue construction on air stripper building (miscellaneous items), and underground piping, continue jack and bore under Interstate 25.

2. VEW System: Shut down pending evaluation of data collected to date.

3. Deep Plume Investigation:

PSMW-24-Cluster: Purge and sample all wells for 8010/8020 analysis.

PSMW-19-X: Install bladder pump, purge and sample for 8010/8020 analysis.

PSMW-25-Cluster: Continue well installation, set up hydro-hoist on site, continue installation of casing and screens.

Corrective Action Program (CAP) Update

1. Air Permit: 100% complete.

Air Permit for emissions associated with the vapor extraction system, and the pump and treat air stripper system. Permit application filed with Albuquerque Air Pollution Control Division on January 7, 1994. Legal notice published January 30, 1994.

Person Station Corrective Action Directive (CAD)
and Corrective Action Program (CAP)
Status Report
(NMT 360010342)

Work Completed December 12, 1994 through December 16, 1994

1. Monday 12/12. PSMW-24-Cluster: Removed tubing used for well development, removed compressor from site.

Monday 12/12. PSMW-25-Cluster: Continued well installation, drilled a 15 inch hole from 780 feet to 920 feet.

2. Tuesday 12/13. PSMW-24-900: Installed packer, bladder pump, and sounding tube.

Tuesday 12/13. PSMW-25-Cluster: Continued well installation, drilled a 15 inch hole from 920 feet to 985 feet, conditioned mud.

Tuesday 12/13. PSMW-19-X: Installed concrete slab and guard posts.

3. Wednesday 12/14. PSMW-24-800: Installed packer, bladder pump, and sounding tube.

Wednesday 12/14. PSMW-24-700: Installed packer, bladder pump, and sounding tube.

Wednesday 12/14. PSMW-25-Cluster: Continued well installation, conditioned mud, removed drill pipe. Southwest Geophysical on site to log hole. Conducted following logs: caliper, neutron, natural gamma ray, single point resistance, Long and Short Normal resistance, and S.P. log, gamma-gamma density. Based on geophysical log results, screen intervals were selected as follows:

25-400:	420 feet to 430 feet
25-500:	555 feet to 565 feet
25-600:	635 feet to 645 feet
25-700:	710 feet to 720 feet
25-800:	815 feet to 825 feet
25-900:	930 feet to 940 feet

4. Thursday 12/15. PSMW-24-400: Installed packer, bladder pump, and sounding tube.

Thursday 12/15. PSMW-24-500: Installed packer, bladder pump, and sounding tube.