



**FAX COVER SHEET**

**Public Service Company of New Mexico  
Alvarado Square - MS 0408  
Albuquerque, NM 87158**

Date: 7/23/99

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Message:  
Corrected Spreadsheets  
Cost Estimate - Person Station

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Person Generating Station  
Post Closure Cost Estimate for 1999 Permit Reapplication

| Line Item | Description  | Cost            |
|-----------|--|-----------------|
| 1a        | RCRA Permit - Yearly Administration, Inspections, Regulatory fees and Reporting (thru 2018)-See Detail 1a                                  | \$ 23,232.00    |
| 1b        | Shallow GW Sampling Program, annual cost for next 20 total years, (thru 2018)-See Detail 1b  | \$ 53,166.00    |
| 1c        | Deep GW Sampling Program, annual cost for next 20 total years, (thru 2018)-See Detail 1c   | \$ 45,748.00    |
| 1d        | Increased Sampling Frequency to Demonstrate Technical Infeasibility - See Detail 1d  | \$ 106,332.00   |
| 2         | RCRA Permit - Non-recurring costs for 1999: Natural Pit Remediation, Permit Modification-See Detail 2                                      | \$ 205,903.00   |
| 2a        | Future NMED Permit Fees, associated PNM labor and Contractor Costs - See Detail 2a   | \$ 623,900.00   |
| 3         | Shallow GW Corrective Action Program - CAP equipment Installation costs for 1989 - See Detail 3  | \$ 142,000.00   |
| 4         | Shallow GW Corrective Action Program (thru 2004) - Annual Operation Costs - See Detail 4   | \$ 112,024.00   |
| 5         | Deep Groundwater Assessment Program, Completion Costs for 1989 - See Detail 5  | \$ -            |
| 6         | Deep Groundwater Corrective Action Program - Installation Costs - See Detail 6   | \$ -            |
| 7         | Deep Groundwater Corrective Action Program - Annual Operation Costs - See Detail 7   | \$ -            |
| 8         | Estimated Cost for 11th year (1999) of permit (line items 1a+1b+1c+2+3+4+5+6)  | \$ 582,073.00   |
| 9         | Estimate for next 20 years (PC period): line 8 + line 1d + line 2a + 19*(line 1a) + 19*(line 1b) + 19*(line 1c) + 5*(line 4) + 10*(line 7) | \$ 4,193,199.00 |
|           |  |                 |
|           | Date of Cost Estimate:   | 07/23/1999      |
|           | Notes:   |                 |
|           | 1. Lines 5, 6 and 7 are set to zero and assumes no engineered corrective action will be needed for deep GW.                                |                 |
|           | 2. Line 4. CAP program for Shallow GW estimated to require 6 additional years of active pumping to complete (might take longer).           |                 |
|           | 3. All labor costs are calculated at \$73 per hour.  |                 |

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Detail 1  
RCRA Permit - Yearly Administration, Inspections, GW Sampling, Maintenance, Reporting  
(1999 Through 2018)

| Assumed Average Labor Rate For All Hourly Activities:  |   | \$73.00           |                 |                |                  |                                   |   |
|--|---|-------------------|-----------------|----------------|------------------|-----------------------------------|---|
| Line Item  | Description   | Laborer Unit Rate | Quantity / Unit | Items Per Year | Annual Cost (\$) | Group Subtotal                    |   |
| <b>Permit Inspections</b>  |   |                   |                 |                |                  |                                   |   |
| 1  | Closure Cap Inspection  | \$73.00           | 1               | 2              | \$ 146.00        |                                   |   |
| 2  | Security Fence Inspection   | \$73.00           | 1               | 2              | \$ 146.00        |                                   |   |
|  |   |                   |                 |                |                  | \$ 292.00                         |   |
| <b>Program Administration/Reporting</b>  |   |                   |                 |                |                  |                                   |   |
| 3  | Administrative Activities: Meetings, Regulatory Contact             | \$ 73.00          | 120             | 1              | \$ 8,760.00      |                                   |   |
| 4  | Annual Data Report Preparation                                      | \$ 73.00          | 160             | 1              | \$ 11,680.00     |                                   |   |
| 5  | Miscellaneous Costs: copies, binders, supplies, reference materials | \$ 1,500.00       | 1               | 1              | \$ 1,500.00      |                                   |   |
| 6  | AMED Annual Business Fee for RCRA permit                            | \$ 1,000.00       | 1               | 1              | \$ 1,000.00      |                                   |   |
|  |   |                   |                 |                |                  | \$ 22,940.00                      |   |
|  | Subtotal for Detail 1a:   |                   |                 |                |                  | \$ 23,232.00                      |   |
| <b>Shallow Well Sampling Program (36 wells)</b>  |   |                   |                 |                |                  |                                   |   |
|  |   |                   |                 |                |                  | <b>Well Group</b>                 | <b>Number</b> <b>Sample Pts @</b> <b>Total Hours</b>            |
| 7  | Preparation - Equipment checkout, planning, set up.                 | \$ 73.00          | 12              | 2              | \$ 1,752.00      | 1R,33,6R,7R,8A,20,10,11,12A,14,37 | 11 1.5 16.5   |
| 8  | Water Level measurements (2 operators, WL readings at 36 wells)     | \$ 73.00          | 16              | 2              | \$ 2,336.00      | 15,13B                            | 2 2.0 4.0   |
| 9  | Purge and Sampling at 36 Shallow wells (2 operators)                | \$ 73.00          | 74              | 2              | \$ 10,804.00     | 16, 24, 25, 26, EW-1, VEW         | 6 1.0 6.0   |
| 10   | Data Review/Evaluation  | \$ 73.00          | 40              | 2              | \$ 5,840.00      | 17,15,18,20,21,22,23,28           | 8 2.5 20.0  |
| 11   | Administration  | \$ 73.00          | 24              | 2              | \$ 3,504.00      | 27,28,30,31,32,34,35,36           | 8 3.0 24.0  |
| 12   | Well Replacement/Maintenance (assume 1 well replaced/yr)            | \$ 12,000.00      | 1               | 1              | \$ 12,000.00     | 33                                | 1 3.5 3.5   |
| 13   | Sampling Supplies/Equipment   | \$ 750.00         | 1               | 2              | \$ 1,500.00      | Totals:                           | 36 13.5 74.0  |
| 14   | Lab Analysis (8021hals x 43)  | \$ 100.00         | 43              | 2              | \$ 8,600.00      |                                   |   |
| 15   | Lab Analysis (App. IX)  | \$ 1,765.00       | 2               | 1              | \$ 3,530.00      |                                   |   |
| 16   | Lab Analysis (Pb & Cr at 24) - discontinued                         | \$ -              | 0               | 0              | \$ -             |                                   |   |
| 17   | Non Labor Costs: Vehicles, gas cylinders, miscellaneous             | \$ 1,850.00       | 1               | 2              | \$ 3,700.00      |                                   |   |
|  | Subtotal For Detail 1b:   |                   |                 |                |                  | \$ 53,166.00                      |   |
|  |   |                   |                 |                |                  |                                   | Cylinders: 1.0 per well \$17 per cyl. = 36 * 1.0 * \$17 = \$612 |
|  |   |                   |                 |                |                  |                                   | Vehicles: 100 hrs * \$5/hr = \$500                              |
|  |   |                   |                 |                |                  |                                   | Misc: \$500   |
|  |   |                   |                 |                |                  |                                   | Say per sampling event \$ 1,650                                 |
| <b>Deep Well Sampling Program (15 wells)</b>   |   |                   |                 |                |                  |                                   |   |
|  |   |                   |                 |                |                  | <b>Well Group</b>                 | <b>Number</b> <b>Sample Pts @</b> <b>Total Hours</b>            |
| 18   | Preparation - Equipment checkout, planning, set up.                 | \$ 73.00          | 12              | 2              | \$ 1,752.00      | 17-8,19-8,22-8                    | 3 8.0 24.0  |
| 19   | Water Level measurements (2 operators, WL readings at 12 wells)     | \$ 73.00          | 16              | 2              | \$ 2,336.00      | 19-5                              | 1 5.0 5.0   |
| 20   | Purge and Sampling of 15 Deep CAD wells (2 operators)               | \$ 73.00          | 84              | 2              | \$ 12,264.00     | 21-5,8                            | 2 5.0 10.0  |
| 21   | Data Review/Evaluation  | \$ 73.00          | 40              | 2              | \$ 5,840.00      | 24-4,8,8,8                        | 4 5.0 20.0  |
| 22   | Administration  | \$ 73.00          | 24              | 3              | \$ 5,256.00      | 25-5,0                            | 2 5.0 10.0  |
| 23   | Well Maintenance  | \$ 10,000.00      | 1               | 1              | \$ 10,000.00     | 27-4,5,8                          | 3 5.0 15.0  |
| 24   | Sampling Supplies/Equipment   | \$ 500.00         | 1               | 2              | \$ 1,000.00      | Totals:                           | 15 33.0 84.0  |
| 25   | Lab Analysis (8021hals x 18)  | \$ 100.00         | 18              | 2              | \$ 3,600.00      |                                   |   |
| 26   | Lab Analysis (Pb & Cr at 24) - discontinued                         | \$ -              | 0               | 0              | \$ -             |                                   |   |
| 27   | Non Labor Costs: Vehicles, gas cylinders, miscellaneous             | \$ 1,750.00       | 1               | 2              | \$ 3,500.00      |                                   |   |
|  | Subtotal For Detail 1c:   |                   |                 |                |                  | \$ 45,748.00                      |   |
|  |   |                   |                 |                |                  |                                   | Cylinders: 1.5 per well \$17 per cyl. = 15 * 1.5 * \$17 = \$382 |
|  |   |                   |                 |                |                  |                                   | Misc: \$500   |
|  |   |                   |                 |                |                  |                                   | Vehicles: 84 hrs * \$5/hr = \$420                               |
|  |   |                   |                 |                |                  |                                   | Say per sampling event \$ 1,750                                 |
| 27   | Detail 1 Total:   |                   |                 |                |                  | \$ 122,146.00                     |   |
| <b>Increased Sampling To Demonstrate Attainment of GW Goals</b>  |   |                   |                 |                |                  |                                   |   |
| 28   | Add Sampling at Shallow Wells                                       | \$ 26,683.00      | 1               | 4              | \$ 106,332.00    |                                   |   |
|  | Subtotal For Detail 1d:   |                   |                 |                |                  | \$ 106,332.00                     |   |
| Note: Sampling will need to be increased from biannual to quarterly one time during program. This will be done to demonstrate asymptotic behavior of GW results as a trigger to evaluate system for Technical Infeasibility or Alternate Abatement Standard. |   |                   |                 |                |                  |                                   |   |

Detail 2  
RCRA Permit - Non-Recurring Costs For 1999, Including Permit Modification

| Assumed Average Labor Rate For All Hourly Activities:     |   | \$73.00            |                    |                |                  |                     |
|---|---|--------------------|--------------------|----------------|------------------|---------------------|
| Line Item   | Description   | Labor or Unit Rate | Hrs/Item or 1 Unit | Items Per Year | Annual Cost (\$) | Group Subtotal      |
| <b>Permit Modification (Renewal of PC Permit)</b>         |   |                    |                    |                |                  |                     |
| 1   | NMED Permit Modification Fee  | NA                 | 0                  | 0              | \$0.00           |                     |
| 2   | Consultant Fee: Preparation of permit mod, pub participation, etc.      | \$75,000.00        | 1                  | 1              | \$75,000.00      |                     |
| 3   | Administration-PNM review and involvement in mod process                | \$73.00            | 300                | 1              | \$21,900.00      |                     |
| 4   | Miscellaneous-non labor PNM costs                                       | \$5,000.00         | 1                  | 1              | \$5,000.00       |                     |
| 5   | Soil CAP - Documenting Completeness (See Details Below)                 | \$69,585.00        | 1                  | 1              | \$69,585.00      |                     |
| 6   | SVE 1999 Operation  | \$5,498.00         | 1                  | 1              | \$5,498.00       |                     |
|   |   |                    |                    |                |                  | <b>\$176,983.00</b> |
| <b>Natural Pit Remediation - Completion of Activities</b> |   |                    |                    |                |                  |                     |
| 6   | PNM Administrative Costs  | \$73.00            | 40                 | 1              | \$2,920.00       |                     |
| 7   | PNM Miscellaneous Costs   | \$1,000.00         | 1                  | 1              | \$1,000.00       |                     |
| 8   | NMED Permit Modification Fee (NFA-Class III)                            | \$25,000.00        | 1                  | 1              | \$25,000.00      |                     |
| 9   | Lab Analysis: To support Risk Based Closure                             | \$0.00             | 0                  | 0              | \$0.00           |                     |
|   |   |                    |                    |                |                  | <b>\$28,920.00</b>  |
| <b>Detail 2 Total:</b>                                    |   |                    |                    |                |                  | <b>\$205,903.00</b> |
| <b>Soil CAP - Documenting Completeness</b>                |   |                    |                    |                |                  |                     |
|   | Drill 2 auger holes, head space analysis, soil samples at 10' intervals | \$ 7,500.00        | 1                  | 1              | \$7,500.00       |                     |
|   | Design/fabricate/install up to 5 Vapor Probes in each hole              | \$ 6,000.00        | 1                  | 1              | \$6,000.00       |                     |
|   | Lab Analysis - On soil cores Collected During Probe Installation        | \$ 225.00          | 1                  | 25             | \$5,625.00       |                     |
|   | Lab Analysis - TOC and moisture   | \$ 30.00           | 1                  | 15             | \$450.00         |                     |
|   | Miscellaneous Costs: En core sampler, cuttings disposal, etc.           | \$ 20,500.00       | 1                  | 1              | \$20,500.00      |                     |
|   | Lab Analysis - Vapor Probe gas sampling (5 probes x two samples)+SVE    | \$ 400.00          | 11                 | 1              | \$4,400.00       |                     |
|   | Data Analysis and Reporting (Contractor)                                | \$ 20,000.00       | 1                  | 1              | \$20,000.00      |                     |
|   | Administration-PNM review and involvement                               | \$73.00            | 70                 | 1              | \$5,110.00       |                     |
|   |   |                    |                    |                |                  | <b>\$ 69,585.00</b> |
| <b>Vapor Extraction System - Operation (1999 Only)</b>    |   |                    |                    |                |                  |                     |
|   | PNM Labor   | \$73.00            | 1                  | 26             | \$1,898.00       |                     |
|   | Compliance Sampling - TO-14 Analysis                                    | \$400.00           | 2                  | 2              | \$1,600.00       |                     |
|   | Carbon Disposal   | \$2,000.00         | 1                  | 1              | \$2,000.00       |                     |
|   |   |                    |                    |                |                  | <b>\$5,498.00</b>   |

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## Detail 2a - NMED Permit Fees

| The estimate below takes into account the current NMED fee structure against an assumed number of permit actions over the life of the permit. |                        |                           |                                |
|---|------------------------|---------------------------|--------------------------------|
| <u>Activity</u>   | <u>Number</u>          | <u>Fee</u>                | <u>Total For This Activity</u> |
| Permit Renewal (circa 2008)   | 1                      | \$ 90,000.00              | \$ 90,000.00                   |
| HSWA Module Fee   | 1                      | \$ 7,500.00               | \$ 7,500.00                    |
| Class I modifications   | 20                     | \$ 1,000.00               | \$ 20,000.00                   |
| Class II modifications  | 10                     | \$ 10,000.00              | \$ 100,000.00                  |
| Class III modifications   | 2                      | \$ 25,000.00              | \$ 50,000.00                   |
| Annual NMED PC Business Fee   | 20                     | \$ 2,000.00               | \$ 40,000.00                   |
| Annual NMED SWMU Business Fee   | 10                     | \$ 1,500.00               | \$ 15,000.00                   |
| Hearing Fees  | 4                      | \$ 5,000.00               | \$ 20,000.00                   |
|   |                        |                           | <b>\$ 342,500.00</b>           |
| <u>Other Costs</u>  | <u>Labor/Unit Rate</u> | <u>Hrs/Item or 1 unit</u> | <u>Total For This Activity</u> |
| PNM labor toward Permit Renewal   | \$73.00                | 600                       | \$ 43,800.00                   |
| Contractor labor for renewal  | \$ 150,000.00          | 1                         | \$ 150,000.00                  |
| Labor for Class I mods (24hrsx20)   | \$73.00                | 480                       | \$ 35,040.00                   |
| Labor for Class II mods (48hrs x10)   | \$73.00                | 480                       | \$ 35,040.00                   |
| Labor for Class III mods (120hrs x 2)   | \$73.00                | 240                       | \$ 17,520.00                   |
|   |                        |                           | <b>\$ 281,400.00</b>           |
| <b>Detail 2a Total:</b>   |                        |                           | <b>\$ 623,900.00</b>           |

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Detail 5

CAD - Deep Groundwater Assessment Program, Completion Costs For 1999

|  |  |  |  |        |  |  |
|--|--|--|--|--------|--|--|
| The NMED has given preliminary indication that it is in agreement with the findings of the Deep Groundwater Assessment work. Based on that it is unlikely that any additional assessment work will be needed for the deep groundwater. |  |  |  |        |  |  |
|  |  |  |  |        |  |  |
|  |  |  |  |        |  |  |
|  |  |  |  |        |  |  |
| CAD Deep Groundwater Assessment Completion (1989 only)   |  |  |  | \$0.00 |  |  |

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Detail 6

CAD - Deep Groundwater Corrective Action Program - Installation Costs

|  |  |  |  |  |  |        |  |
|--|--|--|--|--|--|--------|--|
| <p>The cost estimate for installation of a deep groundwater remediation program is based on very limited data at this time. It currently assumes that no engineered remediation program will be needed, contaminant levels will be monitored only. Monitoring costs are shown in Detail 1.</p> |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
| CAD - Deep Groundwater Corrective Action Program - Installation Costs:   |  |  |  |  |  | \$0.00 |  |

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Detail 7

CAD - Deep Groundwater Corrective Action Program - Annual Operation Costs

|  |  |  |  |  |  |        |  |
|--|--|--|--|--|--|--------|--|
| The cost estimate for operation of a deep groundwater remediation program is based on very limited data at this time. It currently assumes that no engineered remediation program will be needed, contaminant levels will be monitored only. Monitoring costs are shown in Detail 1. |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
|  |  |  |  |  |  |        |  |
| CAD - Deep Plume Corrective Action Program - Annual Operation Costs:   |  |  |  |  |  | \$0.00 |  |

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