



Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

0049140

057767

APR 16 1998

Mr. Steve M. Alexander  
Perimeter Area Section Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
1315 W. 4<sup>th</sup> Avenue  
Kennewick, Washington 99336

Dear Mr. Alexander:

STATE OF WASHINGTON WELL DECOMMISSIONING COMPLETION REPORT

Enclosed please find State of Washington Water Well Reports for the completion of well decommissioning activities for Wells 299-W19-2 (A4948), 299-E27-1 (A48-7), and 299-E32-1 (A4829). This information is provided as required by Washington Administrative Code 173-160-560.

If you have any questions, please call me on 373-9630.

Sincerely,

M. J. Furman, Project Manager  
Groundwater Project

GWP:MJF

Enclosures

cc w/encls:  
S. Leja, Ecology

cc w/o encls:  
J. V. Borghese, BHI  
M. G. Gardner, RFS  
G. C. Henckel, BHI



**ATTACHMENT 1**

**WATER WELL REPORT (A4948)**

# WATER WELL REPORT

STATE OF WASHINGTON

Water Right Permit No.

Start Card No. A20944

UNIQUE WELL I.D. # A4948

N/A

(1) OWNER: Name US Department of Energy Address 825 Jadwin Ave., Richland, WA 99352

(2) LOCATION OF WELL: County Benton SW 1/4 NW 1/4 Sec 07 T. 12 N. R. 26E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) Hanford Site (200 West Area)

(3) PROPOSED USE:  Domestic  Industrial  Municipal   
 Irrigation  Test Well  Other   
 DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) 299-W19-2  
Abandoned  New well  Method: Dug  Bored   
Deepened  Cable  Driven   
Reconditioned  Rotary  Jetted

(5) DIMENSIONS: Diameter of well 9.0 (nominal) inches.  
Drilled 300.0 feet. Depth of completed well 300.0 ft.

(6) CONSTRUCTION DETAILS: As built condition  
Casing installed: 8.0 Diam. from +1.4 ft. to 300.0 ft.  
Welded  Liner installed  Threaded   
Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Perforations: Yes  No   
Type of perforator used Perfhawk  
SIZE of perforations 0.325 in. by 0.625 in.  
6 cuts/ft/pass perforations from 226.0 ft. to 0.0 ft.  
2 cuts/ft perforations from 265.0 ft. to 235.0 ft.  
1 cut/ft perforations from 295.0 ft. to 265.0 ft.

Screens: Yes  No   
Manufacturer's Name N/A  
Type Telescoping Model No. N/A  
Diam. 7" Slot size 10 from 230 ft. to 271 ft.  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Gravel packed: Yes  No  Size of gravel \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Surface seal: Yes  No  To what depth? \_\_\_\_\_ ft.  
Material used in seal \_\_\_\_\_  
Did any strata contain unusable water? Yes  No   
Type of water? \_\_\_\_\_ Depth of strata \_\_\_\_\_  
Method of sealing strata off \_\_\_\_\_

(7) PUMP: Manufacturer's Name N/A H.P. \_\_\_\_\_  
Type: \_\_\_\_\_

(8) WATER LEVELS: Land-surface elevation above mean sea level 692.64 ft.  
Static level 244.67 ft. below top of well Date ZONOV97  
Artesian pressure N/A lbs. per square inch Date N/A  
Artesian water is controlled by N/A (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level  
Was a pump test made? Yes  No  If yes, by whom? \_\_\_\_\_  
Yield: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.

Time	Water Level	Time	Water Level	Time	Water Level
<u>N/A</u>					

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)  
Date of test \_\_\_\_\_  
Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Airtest \_\_\_\_\_ gal./min. with stem set at \_\_\_\_\_ ft. for \_\_\_\_\_ hrs.  
Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_  
Temperature of water \_\_\_\_\_ Was a chemical analysis made? Yes  No

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of equifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
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ABANDONMENT PROCESS:  
1) Sand (10-20) was placed in well; 254.16 232.16

2) the casing was perforated 226 0  
(6 cuts/ft/pass and 3 passes);

3) conduct staged cementing operat- 232.16 0  
ions

NOTE: flocele and calcium chloride (4%) was used in several stages to obtain a seal.

4) break up and remove cement pad;

5) cut casing off @ surface;

6) place stamped brass marker in cement.

NOTE: 118% over calculated casing volume was pumped into well.

N/A

Work Started 03MAR98 19. Completed 11MAR 1998

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Waste Management Federal Services, Inc., NW  
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 345 Hills St., Richland, WA 99352

(Signed) David E. Stoglie License No. 1580  
(WELL DRILLER)

Contractor's Registration No. N/A Date 27 MAR 1998

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-8600. The TDD number is (206) 407-6006.



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**ATTACHMENT 2**

**WATER WELL REPORT (A4807)**



# WATER WELL REPORT

STATE OF WASHINGTON

Water Right Permit No. N/A

Start Card No. A20945  
UNIQUE WELL I.D. # A4807

(1) OWNER: Name US Department of Energy Address 825 Jadwin, Richland, WA 99352  
(2) LOCATION OF WELL: County Benton NW 1/4 NW 1/4 Sec 02 T. 12 N. R. 26E W.M.  
(2a) STREET ADDRESS OF WELL (or nearest address) Hanford Site (200 East Area)

(3) PROPOSED USE:  Domestic  Industrial  Municipal   
 Irrigation  Test Well  Other   
 DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) 29-827  
Abandoned  New well  Method: Dug  Bored   
Deepened  Cable  Driven   
Reconditioned  Rotary  Jetted  1)

(5) DIMENSIONS: Diameter of well 9.0 (nominal) inches.  
Drilled 332.0 feet. Depth of completed well 332.0 ft.

(6) CONSTRUCTION DETAILS: As built condition  
Casing installed: 8.0 Diam. from +2.53 ft. to 332.0 ft.  
Welded  Liner installed  Threaded   
Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Perforations: Yes  No   
Type of perforator used Perfhawk/mills knife  
SIZE of perforations 0.325 in. by 0.625 in.  
5/ft; 1/8IN perforations from 331.0;300.0 ft. to 301.0;262.0 ft.  
18/ft; 6/ft perforations from 321.0;262.0 ft. to 251.0;186.0 ft.  
24/ft perforations from 186.0 ft. to 20.0 ft.

Screens: Yes  No   
Manufacturer's Name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Gravel packed: Yes  No  Size of gravel \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Surface seal: Yes  No  To what depth? 20.0 ft.  
Material used in seal cement  
Did any strata contain unusable water? Yes  No   
Type of water? N/A Depth of strata N/A  
Method of sealing strata off N/A

(7) PUMP: Manufacturer's Name N/A H.P. \_\_\_\_\_  
Type: \_\_\_\_\_

(8) WATER LEVELS: Land-surface elevation above mean sea level 680.02 ft.  
Static level 279.0 ft. below top of well Date 11MAR98  
Artesian pressure N/A lbs. per square inch Date N/A  
Artesian water is controlled by N/A (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level  
Was a pump test made? Yes  No  If yes, by whom? \_\_\_\_\_  
Yield: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
" " " " " "  
" " " " " "  
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)  
Time Water Level Time Water Level  
\_\_\_\_\_  
Date of test \_\_\_\_\_  
Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Airtest \_\_\_\_\_ gal./min. with stem set at \_\_\_\_\_ ft. for \_\_\_\_\_ hrs.  
Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_  
Temperature of water \_\_\_\_\_ Was a chemical analysis made? Yes  No

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
ABANDONMENT PROCESS:		
1) Perforated well casing @ 6 cuts/ft/	321.0	251.0
pass and 3 passes;		
2) perforated well casing @ 6 cuts	262.0	186.0
ft and 1 pass;		
3) pressure grouted (approx. 30 psi)	321.0	189.8
4) perforated well casing @	186.0	86.0
6 cts/ft/pass and 4 passes;		
5) pressure grouted (approx. 140psi)	189.8	89.0
6) perforated well casing @	86.0	20.0
6 cts/ft/pass and 4 passes		
7) pressure grouted (approx. 50psi)	89.0	12.5
8) excavation/cut casing off @		
approx. 3 ft BLS;		
9) topped cement off to top of		
casing;		
10) inscribe cement with date well		
was decommissioned and I.D. #;		
11) excavation back filled		
NOTE 1: A surface seal was previously		
installed to 20.0 ft.		
NOTE 2: Previously perforations @		
331-301 (5 holes/ft).		
NOTE 3: 50 % over calculated volume		
was pumped into well.		
Work Started <u>11MAR98</u> , 19. Completed <u>23MAR</u> , 19 <u>98</u>		

WELL CONSTRUCTOR CERTIFICATION:  
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Waste Management Federal Services, Inc. NW  
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)  
Address 345 Hills St., Richland, WA 99352  
(Signed) David Skogha License No. 1580  
(WELL DRILLER)

Contractor's Registration No. N/A Date 27 MAR, 19 98

(USE ADDITIONAL SHEETS IF NECESSARY)  
Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6600. The TDD number is (206) 407-6006.

**ATTACHMENT 3**

**WATER WELL REPORT (A4829)**



# WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. A20946

UNIQUE WELL I.D. # A4829

Water Right Permit No. N/A

(1) OWNER: Name US Department of Energy Address 825 Jadwin Ave., richland, WA 99352

(2) LOCATION OF WELL: County Benton NW 1/4 SW 1/4 Sec 34 T. 13N N. R. 26E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) Hanford site (200 East area)

(3) PROPOSED USE:   
 Domestic  Industrial  Municipal   
 Irrigation  Test Well  Other   
 DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) 299-E32-1  
 Abandoned  New well  Method: Dug  Bored   
 Deepened  Cable  Driven   
 Reconditioned  Rotary  Jetted

(5) DIMENSIONS: Diameter of well 9.0 (Nominal) inches.  
 Drilled 283.0 feet. Depth of completed well 275.0 ft.

(6) CONSTRUCTION DETAILS: As built condition  
 Casing installed: 8.0 " Diam. from +1.4 ft. to 275.0 ft.  
 Welded  Liner installed  Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Threaded  Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Perforations: Yes  No   
 Type of perforator used Perfhawk/Mills knife  
 SIZE of perforations 0.325 in. by 0.625 in.  
6 cts/ft/pass perforations from 274.0 ft. to 260.0 ft.  
6 cts/ft/pass perforations from 241.0 ft. to 3.0 ft.  
6 holes/ft perforations from 260.0 ft. to 241.0 ft.

Screens: Yes  No   
 Manufacturer's Name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Gravel packed: Yes  No  Size of gravel \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Surface seal: Yes  No  To what depth? \_\_\_\_\_ ft.  
 Material used in seal \_\_\_\_\_  
 Did any strata contain unusable water? Yes  No   
 Type of water? \_\_\_\_\_ Depth of strata \_\_\_\_\_  
 Method of sealing strata off \_\_\_\_\_

(7) PUMP: Manufacturer's Name N/A H.P. \_\_\_\_\_  
 Type: \_\_\_\_\_

(8) WATER LEVELS: Land-surface elevation above mean sea level 654.77 ft.  
 Static level 254.3 ft. below top of well Date 24MAR98  
 Artesian pressure N/A lbs. per square inch Date N/A  
 Artesian water is controlled by N/A (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level  
 Was a pump test made? Yes  No  If yes, by whom? \_\_\_\_\_  
 Yield: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
 " " " " " " " "  
 " " " " " " " "  
 Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)  

Time	Water Level	Time	Water Level	Time	Water Level

 Date of test N/A  
 Bailor test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
 Adjust \_\_\_\_\_ gal./min. with stem set at \_\_\_\_\_ ft. for \_\_\_\_\_ hrs.  
 Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_  
 Temperature of water \_\_\_\_\_ Was a chemical analysis made? Yes  No

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
ABANDONMENT PROCESS:		
1) Perforate casing (6 cuts/ft/pass and 3 passes);	274.0	260.0
NOTE: Interval 260-241 was previously perforated @ 6 holes/ft.		
2) perforate casing (6 cuts/ft/pass and 3 passes);	241.0	3.0
3) cement was calculated, mixed & pumped;	279.8	3.0
4) excavated around casing to approx. 3 ft BLS;		
5) cut casing off @ approx. 3 ft BLS;		
6) inscribe in cement date decommissioned and well I.D. #;		
7) back excavation with native soil.		
<i>N/A</i>		
NOTE: 62% over calculated volume was placed in well.		
<i>N/A</i>		

Work Started 23MAR98, 19. Completed 27MAR, 19 98

**WELL CONSTRUCTOR CERTIFICATION:**

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NAME Waste Management Federal Services, Inc., NW  
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 345 Hills St., Richland, WA99352

(Signed) David E Skoglie License No. 1580  
(WELL DRILLER)

Contractor's Registration No. N/A Date 27MAR, 19 98

(USE ADDITIONAL SHEETS IF NECESSARY)

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**ATTACHMENT 4**

**GHOST LETTER**



Mr. Steve M. Alexander, Manager  
Perimeter Areas Section Manager  
Nuclear Waste Programs  
State of Washington  
Department of Ecology  
1315 W. Fourth Avenue  
Kennewick, Washington 99336-6018

Dear Mr. Alexander:

**STATE OF WASHINGTON WELL DECOMMISSIONING COMPLETION REPORT**

Enclosed please find State of Washington Water Well Reports for the completion of well decommissioning activities for Wells 299-W19-2 (A4948), 299-E27-1 (A4807), and 299-E32-1 (A4829). This information is provided as required by Washington State Administrative Code 173-160-560.

If you have any questions, please call me on 373-9630.

Sincerely,

Mr. M. J. Furman, Manager  
Groundwater Project

Enclosures:

- (1) Water Well Report (A4948)
- (2) Water Well Report (A4807)
- (3) Water Well Report (A 4829)

cc: J. V. Borghese (BHI) H0-19, w/o  
M. G. Gardner (WM-NW) H1-12, w/o  
G. C. Henckel (BHI) H0-19, w/o  
Stan Leja (WDOE) B5-18, w/a