0041561

ENGINEERING CHANGE NOTICE

1. ECN 186391

Proj. ECN N/A

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.	3a. USQ Required?	4. Date
Supplemental [X] Direct Revision [] Change ECN [] Temporary [] Standby [] Supersedure [] Cancel/Void []	T. J. Wood OM613/RD1CA S3-24 373-7492	[] Yes [X] No	June 08, 1995
	5. Project Title/No./Work Order No. NA	6. Bldg./Sys./Fac. No. NA	7. Approval Designator QD
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-EN-AP-161, Rev 0	9. Related ECN No(s). 186390	10. Related PO No. NA

11a. Modification Work	11b. Work Package No.	11c. Modification Work Complete	11d. Restored to Original Condition (Temp. or Standby ECN only)
[] Yes (fill out Blk. 11b) [X] No (NA Blks. 11b, 11c, 11d)	NA	NA Cog. Engineer Signature & Date	NA Cog. Engineer Signature & Date

12. Description of Change

WHC-SD-EN-AP-161, Rev 0, "Fitness-for-Intended-Use Evaluation Recommendations for Hanford Site 600 Area Wells." **Increase scope of document to include attached Appendix E.**

13a. Justification (mark one)

Criteria Change	[X]	Design Improvement	[]	Environmental	[]	Facility Deactivation	[]
As-Found	[]	Facilitate Const	[]	Const. Error/Omission	[]	Design Error/Omission	[]

13b. Justification Details

Expands plan application in accordance with WAC 173-160 well decommissioning critera.

14. Distribution (include name, MSIN, and no. of copies)

See Distribution Sheet

RELEASE STAMP

OFFICIAL RELEASE BY WHC (2)
DATE JUN 13 1995

JUN 1995 RECEIVED EDMC

A-7900-013-2 (11/94) GEF095

A-7900-013-1 (11/88)

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1): 186391

15. Design Verification Required	16. Cost Impact						17. Schedule Impact (days)		
	ENGINEERING			CONSTRUCTION					
[] Yes	Additional	[]	$ NA	Additional	[]	$	Improvement	[]	NA
[X] No	Savings	[]	$	Savings	[]	$	Delay	[]	

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]	Tickler File	[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision
NA		

20. Approvals

	Signature	Date		Signature	Date
OPERATIONS AND ENGINEERING			ARCHITECT-ENGINEER		
Cog. Eng. T. J. Wood	T. J. Wood	6-9-95	PE		
Cog. Mgr. M. G. Gardner	M. G. Gardner	6-9-95	QA		
QA W. R. Thackaberry	W. R. Thackaberry	6-9-95	Safety		
Safety			Design		
Environ.			Environ.		
Other J. S. Schmid	J. Schmid	6/9/95	Other		
R. R. Thompson	R. R. Thompson	6/9/95			
S. P. Luttrell	S. P. Luttrell	6/12/95			
T. F. Kisenwether	T. F. Kisenwether	6/12/95	DEPARTMENT OF ENERGY		
	TBHI		Signature or a Control Number that tracks the Approval Signature		
			M. J. Furman	M. J. Furman	6-13-95
			ADDITIONAL		
			R. D. Hildebrand	R. D. Hildebrand	6-9-95
			~~G. H. Gunion~~ DES K. M. Thompson	K. M. Thompson	6-12-95

Subject: 600 Area Well Decommissioning Planned for 3rd and 4th Quarter FY 1995 by WHC Well Services

This Appendix E to WHC-SD-EN-AP-161 lists Hanford Site wells selected for decommissioning during the 3rd and/or 4th quarters of FY 1995 under the well decommissioning charter of WHC Well Services.

Groundwater monitoring wells subject to the Hanford Facility RCRA Permit (Permit), Condition II.F.2, are currently in compliant condition and in active use. These wells are currently not identified as requiring decommissioning. However, the Second Responsiveness Summary for the subject permit provided by the Washington State Department of Ecology (Department) states the Department's understanding that orphan wells have been identified as those wells which are not claimed and are not in use and that these wells are considered "RCRA" wells by the Hanford Administration. Approximately 455 wells have been designated "orphan". The Department goes on to state that they (the Department) "will pursue enforcement action outside of this permit to assess and remediate and/or abandon (to Chapter 173-160 WAC standards), where applicable, those wells not being addressed by this permit."

A map of the well locations, construction summary drawings, resource protection groundwater well structure fitness for use checklists for each well, and a diagram of the decommissioning process to be followed for each well are attached. Selection of wells to be decommissioned used one or more of the following critera:

1. No declared owner or use, i.e., orphan status (RCRA).
2. Located in the 600 Area.
3. Deep boreholes lacking annular seals that have the potential for interconnection of aquifers or upward leakage from confined aquifers.
4. Relatively near Columbia or Yakima Rivers or North of Gable Butte/Gable Mountain and/or within ~5 kilometers of the rivers.
5. Relatively near waste burial sites.
6. Wells that are a safety hazard.

A well (one) has been located that was previously evaluated and approved (Pacific NorthWest Laboratory, Bechtel Hanford Inc., Westinghouse Hanford Company) for decommissioning, but could not be located. This well is 699-84-61B (A9033).

The remaining two orphan wells, 199-B4-2 and 199-B4-3, have been requested to be decommissioned by Bechtel Hanford Company. These monitoring wells are located at a remediation site and must be decommissioned prior to construction activites.

Reference general information in Table 1.

Table 1. 600 and 100 Area Wells Recommended for Decommissioning

Well Number	Hanford Coords. N/S	E/W	Date Drilled	Depth Drilled	Casing size	Well ID/ Type	Owner	Recommended Disposition
699-84-61B	N83720.00	-60880.00	12/72	115.00 ft	6.0 in	A9033/GW	orphan	decommission
T14N, R26E, S28, SE NW								
199-B4-2	N69934.00	-80672.20	02/49	90.00 ft	6.0 in	A5539/GW	orphan	decommission
T13N, R25E, S12, NW SE								
199-B4-3	N69934.60	-80633.60	02/49	91.00 ft	8.0 in	A4556/GW	orphan	decommission
T13N, R25E. S12, NW SE								

WELL LOCATION MAP

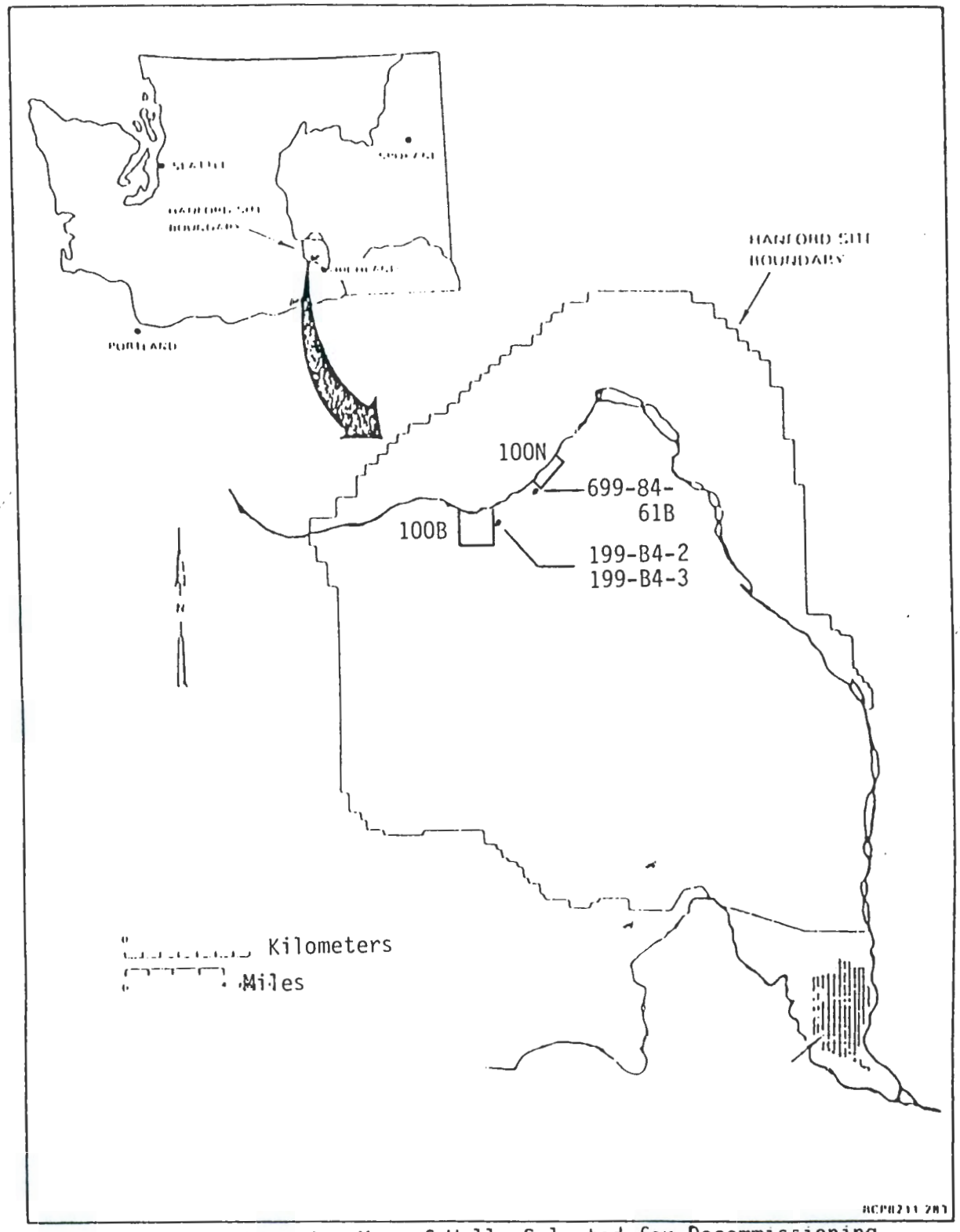


Figure 1. Location Map of Wells Selected for Decommissioning

Fitness-for-Intended Use
Evaluation Recommendations
For Hanford Site 600 and 100 Area Wells

Well	699-84-61B	Page 7
Well	199-B4-2	Page 11
Well	199-B4-3	Page 15

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST	1. Well No. 699-84-61B Page 1 of 2

2. Has a need for use of the well been identified and documented?
   [No] No potential user identified
3. Is well presently in use?
   [No] No use identified
4. Is casing sealed in accordance with IAW WAC 173-160-075?
   [No] No documented annular seal
   4a. Natural barriers preserved?
   [No] Well terminates within top of unconfined aquifer
   4b. Aquifer/strata pentrated permanently sealed?
   [No] No seals documented
   4c. Annulus sealed against surface water?
   [No] No surface seal documented
   4d. Casing overlap more than 8 ft; packed and grouted?
   [N/A] Not applicable
5. If not in use, is well capped IAW WAC 173-160-085?
   [No] Not capped or locked
6. Is design and construction IAW WAC 173-160-500?
   [No] No annular seal documented
   6a. Saturated formation/aquifers not connected?
   [N/A] Not applicable
   6b. Cuttings/development water handled IAW WAC 173-303?
   [N/A] Drilled prior to date of WAC 173-303
   6c. Well properly indentified?
   [No] No permanent identification
7. Is surface protection IAW WAC 173-160-510?
   [No] No surface seal documented
   7a. Well capped and protected?
   [No] No cap, no posts or pad present
   7b. Protective posts, surface pad or cover installed?
   [N/A] Not applicable
   7c. Surface protection waived or variance obtained?
   [N/A] Not applicable
   7d. Is existing surface protection damaged?
   [N/A] Not applicable
8. Are casing materials IAW 173-160-520?
   [N/A] Not applicable
9. Was drill rig/drilling equipment cleaned IAW WAC 173-160-530?
   [N/A] Not applicable
   9a. Drill rig/equipment casing/screen cleaned?
   [N/A] Not applicable
   9b. Filter pack cleaned? Material compatible?
   [N/A] Not applicable

RCRA/CERCLA MONITORING WELL?

10. Does water sample from vertical screened interval represent horizontal stratigraphy?
   [N/A] Not applicable
   10a. Screened interval documented?
   [N/A] Not applicable
   10b. Vertical lithology documented?
   [No] Not documented

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST	1. Well No. 699-84-61B Page 2 of 2

11. Is design and construction IAW WAC 173-160-540?

[N/A] Not applicable

11a. Screen commercially fabricated of material nonreactive to subsurface conditions?

[N/A] Not applicable

11b. If filter pack installed, extends from bottom of screen to at least 3 ft above screen.

[N/A] Not applicable

11c. Well has been developed.

[N/A] Not applicable

11d. Annulus grouted with bentonite or bentonite/cement mixture.

[N/A] Not applicable

12. Does water sample meet established acceptance criteria?
Sample is less than 5 NTU and sand free.

[N/A] Not applicable

13. Data Sources Used:

Logs:

Driller's: Not documented Date: 12/00/72 Company: N/A

Geologist: Date: Company:

Geophysical: Date: Company:

Television: Date: Company:

Publications: Title, Author, Date

HANFORD WELLS, M. A. Chamness and J.K. Merz, August 1993

Databases:

WHC Well Services

Field Check: Well Services Date: 03/28/95 Company: WHC

Other:

14. Comments: Identify evaluation criteria addressed by number:

15. Status

Well is acceptable for intended use	[No]	Well lacks seals
Well is acceptable for intended use if variance is granted	[N/A]	Not applicable
Rehabilitation required to continue intended use	[No]	Not applicable
Remediation required to achieve intended use	[No]	Well has no identified user
Decommission, well is unneeded or cannot be remediated	[Yes]	Well has no identified need
Other	[ ]	

16. Status Recommendation

Done By: Name: T. J. Wood Title: Senior Engineer Date: 06/08/95

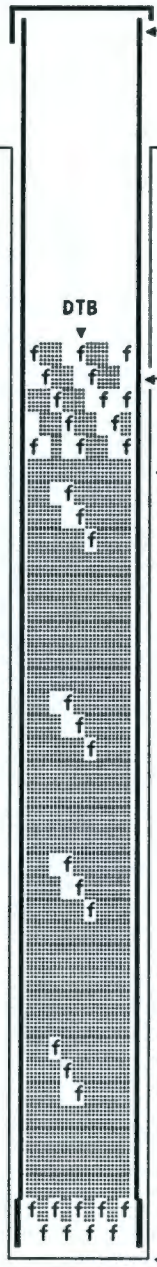
A-6000-451R (06/93)

WELL CONSTRUCTION AND COMPLETION SUMMARY

Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 699-84-61B A9033
Drilling Fluid Used: Water	Additives Used: Not documented	TEMPORARY WELL NO: BH-13
Driller's Name: Not documented	WA State Lic Nr: Not documented	Hanford Coordinates: N/S N 60,880 E/W W 83,720
Drilling Company: Not documented	Company Location: Unknown	State Coordinates: N 489,248 E 2,233,548
Date Started: Not documented	Date Complete: Dec72	Start Card #: Not documented T 14N R 25E S 28
		Elevation Ground surface: 468.75ft Estimated

Depth to water: 76.0-ft Dec72
(Ground surface)

GENERALIZED STRATIGRAPHY Driller's Log



Elevation of reference point: [470.60-ft]
(top of casing)

Height of reference point above [1.9-ft]
ground surface

Depth of surface seal [ND]
No surface seal documented:

5-in ID carbon steel casing, +1.9-115.0-ft

6-in nominal hole, 0-115-ft

DTB=Depth to bottom,
19.9-ft 28Mar95

Borehole drilled depth: [115-ft]

Drawing By: TJW/6N84W61B.ASB
Date : 08Jun95
Reference : HANFORD WELLS

DIAGRAMMATIC WELL DECOMMISSIONING PROCESS

Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 699-84-61B A9033
Drilling Fluid Used: Water	Additives Used: Not documented	TEMPORARY WELL NO: BH-13
Driller's Name: Not documented	WA State Lic Nr: Not documented	Hanford Coordinates: N/S N 60,880 E/W W 83,720
Drilling Company: Not documented	Company Location: Unknown	State Coordinates: N 489,248 E 2,233,548
Date Started: Not documented	Date Complete: Dec72	Start Card #: Not documented T 14N R 25E S 28
		Elevation Ground surface: 468.75ft Estimated

Depth to water: 76.0-ft Dec72
(Ground surface)

DIAGRAMMATIC
DECOMMISSIONING ACTIVITIES
(Depths from ground surface)

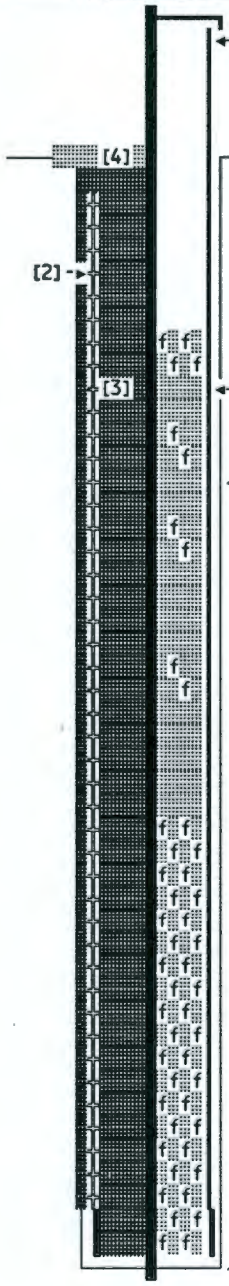
[1] Establish depth to bottom clean out

[2] Perforate casing 3↔115-ft

[3] Grout with cement from 115-ft back to 3-ft

[4] Cut casing at 3-ft. place cement, brass pin and plate, fill to grade

NOTE:
Order of work to be determined by field conditions.



Elevation of reference point: [470.60-ft]
(top of casing)

Height of reference point above [1.9-ft]
ground surface

Depth of surface seal [ND]
No surface seal documented:

5-in ID carbon steel casing, +1.9↔115.0-ft

6-in nominal hole, 0↔115-ft

Borehole drilled depth: [115-ft]

Drawing By: TJW/6N84W61B.PLN
Date : 08Jun95
Reference : HANFORD WELLS

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST	1. Well No. 199-B4-2
	Page 1 of 2

2. Has a need for use of the well been identified and documented?
[No] No potential user identified

3. Is well presently in use?
[No] No use identified

4. Is casing sealed in accordance with IAW WAC 173-160-075?
[No] No documented annular seal

4a. Natural barriers preserved?
[No] Well terminates within top of unconfined aquifer

4b. Aquifer/strata pentrated permanently sealed?
[No] No seals documented

4c. Annulus sealed against surface water?
[No] No surface seal documented

4d. Casing overlap more than 8 ft; packed and grouted?
[N/A] Not applicable

5. If not in use, is well capped IAW WAC 173-160-085?
[Yes] Capped, locked

6. Is design and construction IAW WAC 173-160-500?
[No] No annular seal documented

6a. Saturated formation/aquifers not connected?
[N/A] Not applicable

6b. Cuttings/development water handled IAW WAC 173-303?
[N/A] Drilled prior to date of WAC 173-303

6c. Well properly indentified?
[No] No permanent identification

7. Is surface protection IAW WAC 173-160-510?
[No] No surface seal documented

7a. Well capped and protected?
[No] Capped, no posts or pad present

7b. Protective posts, surface pad or cover installed?
[N/A] Not applicable

7c. Surface protection waived or variance obtained?
[N/A] Not applicable

7d. Is existing surface protection damaged?
[N/A] Not applicable

8. Are casing materials IAW 173-160-520?
[N/A] Not applicable

9. Was drill rig/drilling equipment cleaned IAW WAC 173-160-530?
[N/A] Not applicable

9a. Drill rig/equipment casing/screen cleaned?
[N/A] Not applicable

9b. Filter pack cleaned? Material compatible?
[N/A] Not applicable

RCRA/CERCLA MONITORING WELL?

10. Does water sample from vertical screened interval represent horizontal stratigraphy?
[N/A] Not applicable

10a. Screened interval documented?
[N/A] Not applicable

10b. Vertical lithology documented?
[No] Not documented

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST

1. Well No. 199-B4-2

Page 2 of 2

11. Is design and construction IAW WAC 173-160-540?
[N/A] Not applicable

11a. Screen commercially fabricated of material nonreactive to subsurface conditions?
[N/A] Not applicable

11b. If filter pack installed, extends from bottom of screen to at least 3 ft above screen.
[N/A] Not applicable

11c. Well has been developed.
[N/A] Not applicable

11d. Annulus grouted with bentonite or bentonite/cement mixture.
[N/A] Not applicable

12. Does water sample meet established acceptance criteria?
Sample is less than 5 NTU and sand free.
[N/A] Not applicable

13. Data Sources Used:
Logs:
Driller's: Not documented Date: 02/28/49 Company: N/A
Geologist: Date: Company:
Geophysical: Date: Company:
Television: Date: Company:

Publications: Title, Author, Date
HANFORD WELLS, M. A. Chamness and J.K. Merz, August 1993

Databases:
WHC Well Services

Field Check: Well Services Date: Company: WHC

Other:

14. Comments: Identify evaluation criteria addressed by number:

15. Status

Well is acceptable for intended use	[No]	Well lacks seals
Well is acceptable for intended use if variance is granted	[N/A]	Not applicable
Rehabilitation required to continue intended use	[No]	Not applicable
Remediation required to achieve intended use	[No]	Well has no identified user
Decommission, well is unneeded or cannot be remediated	[Yes]	Well has no identified need
Other	[ ]	

16. Status Recommendation
Done By: Name: T. J. Wood Title: Senior Engineer Date: 06/08/95

A-6000-451R (06/93)

WELL CONSTRUCTION AND COMPLETION SUMMARY

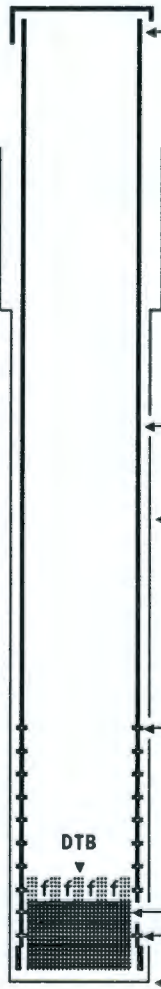
Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 199-B4-2 A5539 TEMPORARY WELL NO: 108-B-2
Drilling Fluid Used: Water	Additives Used: Not documented	Hanford Coordinates: N/S N 69,934.0 E/W W 80,672.2
Driller's Name: Rodda	WA State Lic Nr: Not documented	State NAD83 N 144,770.89m E 565,283.84m
Drilling Company: Not documented	Company Location: Not documented	Coordinates: N 475,028 E 2,214,474
Date Started: 15Feb49	Date Complete: 28Feb49	Start Card #: Not documented T___ R___ S___
		Elevation Ground surface: 460.4-ft Estimated

Depth to water: 63-ft Feb49
(Ground surface) 59.7-ft Jun91 TV

GENERALIZED STRATIGRAPHY Driller's Log

0↔15: SAND, GRAVEL, SILT and BOULDERS
15↔18: SAND, GRAVEL and BOULDERS
18↔20: BOULDER
20↔21: SAND, GRAVEL and BOULDERS
21↔25: SAND and GRAVEL
25↔27: SAND, GRAVEL and SILT
27↔50: SAND and GRAVEL
50↔55: SAND, GRAVEL and BOULDERS
55↔59: SAND and GRAVEL
59↔60: SAND, GRAVEL and BOULDERS
60↔70: Coarse SAND
70↔73: SAND and GRAVEL
73↔85: SAND, GRAVEL and SILT
85↔90: SAND, GRAVEL, BOULDERS and SILT

REMEDIATION:
Multiple remediations/cleaning.
Perforated 62↔70-ft, Row, Apr51.
Bultena set cement plug to 86-ft, May78.



Elevation of reference point: [461.37-ft] (top of casing)

Height of reference point above ground surface [1.0-ft]

Depth of surface seal [ND]
No surface seal documented

9-in nominal hole, 0↔21-ft

Driller's Note:
Drilled with 8-in casing to 21-ft, pulled 8-in and drilled with 6-in casing to 90-ft.

6-in ID carbon steel casing, +1↔90-ft

7-in nominal hole, 21↔90-ft

8-in casing perforations,
62↔70-ft, not documented
70↔88-ft, 5 holes/ft

Cement plug set to 86-ft

Borehole drilled depth: [90.0-ft]

DTB=Depth to bottom,
83.3-ft, 07Jun91-TV

Drawing By: RKL/1-B4-02.ASB
Date : 08Nov94
Reference : HANFORD WELLS

DIAGRAMMATIC WELL DECOMMISSIONING PROCESS

Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 199-B4-2 A5539	TEMPORARY WELL NO: 108-B-2
Drilling Fluid Used: Water	Additives Used: Not documented	Hanford Coordinates: N/S N 69,934.0	E/W W 80,672.2
Driller's Name: Rodda	WA State Lic Nr: Not documented	State NAD83 N 144,770.89m	E 565,283.84m
Drilling Company: Not documented	Company Location: Not documented	Coordinates: N 475,028	E 2,214,474
Date Started: 15Feb49	Date Complete: 28Feb49	Start Card #: Not documented	T___ R___ S___
		Elevation Ground surface: 460.4-ft Estimated	

Depth to water: 63-ft Feb49
(Ground surface) 59.7-ft Jun91 TV

DIAGRAMMATIC
DECOMMISSIONING ACTIVITIES
(Depths from ground surface)

[1] Establish depth to bottom

[2] Perforate casing from 86↔27-ft

[3] Cut casing at 27-ft

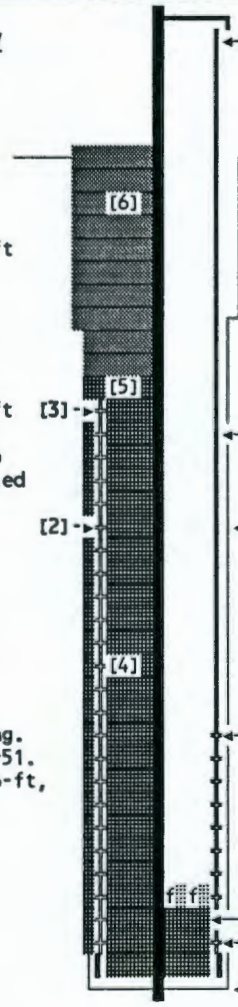
[4] Place grout by tremie from 86↔27-ft

[5] Place cement cap from 27↔25-ft

[6] Place bentonite from 25-ft to surface as casing is backpulled

NOTE:
Order of work to be determined by field conditions.

REMEDIATION:
Multiple remediations/cleaning.
Perforated 62↔70-ft, Row, Apr51.
Bultena set cement plug to 86-ft, May78.



Elevation of reference point: [461.37-ft] (top of casing)

Height of reference point above ground surface [1.0-ft]

Depth of surface seal [ND]
No surface seal documented

9-in nominal hole, 0↔21-ft

Driller's Note:
Drilled with 8-in casing to 21-ft, pulled 8-in and drilled with 6-in casing to 90-ft.

6-in ID carbon steel casing, +1↔90-ft

7-in nominal hole, 21↔90-ft

8-in casing perforations,
62↔70-ft, not documented
70↔88-ft, 5 holes/ft

Cement plug set to 86-ft

Borehole drilled depth: [90.0-ft]

DTB=Depth to bottom,
83.3-ft, 07Jun91-TV

Drawing By: TJW/1-B4-02.PLN
Date : 07Jun95
Reference : HANFORD WELLS

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST	1. Well No. 199-B4-3
	Page 1 of 2

2. Has a need for use of the well been identified and documented?
[No] No potential user identified

3. Is well presently in use?
[No] No use identified

4. Is casing sealed in accordance with IAW WAC 173-160-075?
[No] No documented annular seal

4a. Natural barriers preserved?
[No] Well terminates within top of unconfined aquifer

4b. Aquifer/strata pentrated permanently sealed?
[No] No seals documented

4c. Annulus sealed against surface water?
[No] No surface seal documented

4d. Casing overlap more than 8 ft; packed and grouted?
[N/A] Not applicable

5. If not in use, is well capped IAW WAC 173-160-085?
[Yes] Capped, and locked

6. Is design and construction IAW WAC 173-160-500?
[No] No annular seal documented

6a. Saturated formation/aquifers not connected?
[N/A] Not applicable

6b. Cuttings/development water handled IAW WAC 173-303?
[N/A] Drilled prior to date of WAC 173-303

6c. Well properly indentified?
[No] No permanent identification

7. Is surface protection IAW WAC 173-160-510?
[No] No surface seal documented

7a. Well capped and protected?
[No] Capped, no posts or pad present

7b. Protective posts, surface pad or cover installed?
[N/A] Not applicable

7c. Surface protection waived or variance obtained?
[N/A] Not applicable

7d. Is existing surface protection damaged?
[N/A] Not applicable

8. Are casing materials IAW 173-160-520?
[N/A] Not applicable

9. Was drill rig/drilling equipment cleaned IAW WAC 173-160-530?
[N/A] Not applicable

9a. Drill rig/equipment casing/screen cleaned?
[N/A] Not applicable

9b. Filter pack cleaned? Material compatible?
[N/A] Not applicable

RCRA/CERCLA MONITORING WELL?

10. Does water sample from vertical screened interval represent horizontal stratigraphy?
[N/A] Not applicable

10a. Screened interval documented?
[N/A] Not applicable

10b. Vertical lithology documented?
[No] Not documented

RESOURCE PROTECTION GROUNDWATER WELL STRUCTURE FITNESS FOR USE CHECKLIST

1. Well No. 199-B4-3

Page 2 of 2

11. Is design and construction IAW WAC 173-160-540?
[N/A] Not applicable

11a. Screen commercially fabricated of material nonreactive to subsurface conditions?
[N/A] Not applicable

11b. If filter pack installed, extends from bottom of screen to at least 3 ft above screen.
[N/A] Not applicable

11c. Well has been developed.
[N/A] Not applicable

11d. Annulus grouted with bentonite or bentonite/cement mixture.
[N/A] Not applicable

12. Does water sample meet established acceptance criteria?
Sample is less than 5 NTU and sand free.
[N/A] Not applicable

13. Data Sources Used:
Logs:
Driller's: Rumley Date: 02/23/49 Company: N/A
Geologist: Date: Company:
Geophysical: Date: Company:
Television: Date: Company:
Publications: Title, Author, Date
HANFORD WELLS, M. A. Chamness and J.K. Merz, August 1993
Databases:
WHC Well Services
Field Check: Date: Company:
Other:

14. Comments: Identify evaluation criteria addressed by number:

15. Status

Well is acceptable for intended use	[No]	Well lacks seals
Well is acceptable for intended use if variance is granted	[N/A]	Not applicable
Rehabilitation required to continue intended use	[No]	Not applicable
Remediation required to achieve intended use	[No]	Well has no identified user
Decommission, well is unneeded or cannot be remediated	[Yes]	Well has no identified need
Other	[ ]	

16. Status Recommendation
Done By: Name: T. J. Wood Title: Senior Engineer Date: 06/08/95

A-6000-451R (06/93)

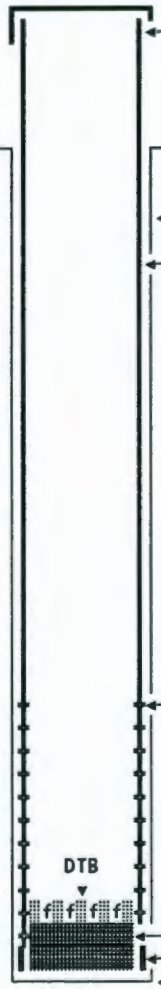
WELL CONSTRUCTION AND COMPLETION SUMMARY

Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 199-B4-3 A4556 / TEMPORARY WELL NO: 108-B-3
Drilling Fluid Used: Water	Additives Used: Not documented	Hanford Coordinates: N/S N 69,934.6 E/W W 80,633.6
Driller's Name: Rumley	WA State Lic Nr: Not documented	State NAD83 N 144,771.13m E 565,295.59m
Drilling Company: Not documented	Company Location: Not documented	Coordinates: N 475,029 E 2,214,512
Date Started: 15Feb49	Date Complete: 23Feb49	Start Card #: Not documented T___ R___ S___
		Elevation Ground surface: 460.2-ft Estimated

Depth to water: 63-ft Feb49
(Ground surface) 63.3-ft 03Jun94

GENERALIZED STRATIGRAPHY — Driller's Log

0-6: SAND, GRAVEL and BOULDERS
6-25: SAND, ROCKS and BOULDERS
25-28: ROCKS and BOULDERS
28-48: GRAVEL, ROCKS and BOULDERS
48-70: GRAVEL, ROCKS and coarse SAND
70-80: SILT, SAND and GRAVEL
80-84: Coarse SAND
84-91: Coarse SAND and GRAVEL



Elevation of reference point: [461.71-ft] (top of casing)

Height of reference point above ground surface [1.5-ft]

Depth of surface seal [ND]
No surface seal documented

9-in nominal hole, 0-91-ft

8-in ID carbon steel casing, +1.5-~91-ft

8-in casing perforations,
60-70-ft, 4 cuts/rd/ft
70-90-ft, 5 holes/ft

Cement plug @ 86-ft

Borehole drilled depth: [91.0-ft]

DTB=Depth to bottom,
82.3-ft, 07Jun91TV

REMEDIATION:
Multiple remediations/cleaning.
Bultena perforated 60-70-ft and set cement plug to 86-ft, May78.

Drawing By: RKL/1-B4-03.ASB
Date : 09Nov94
Reference : HANFORD WELLS

DIAGRAMMATIC WELL DECOMMISSIONING PROCESS

Drilling Method: Cable tool	Sample Method: Hard tool (nom)	WELL NUMBER: 199-B4-3 A4556 TEMPORARY WELL NO: 108-B-3
Drilling Fluid Used: Water	Additives Used: Not documented	Hanford Coordinates: N/S N 69,934.6 E/W W 80,633.6
Driller's Name: Rumley	WA State Lic Nr: Not documented	State NAD83 N 144,771.13m E 565,295.59m
Drilling Company: Not documented	Company Location: Not documented	Coordinates: N 475,029 E 2,214,512
Date Started: 15Feb49	Date Complete: 23Feb49	Start Card #: Not documented T___ R___ S___
		Elevation Ground surface: 460.2-ft Estimated

Depth to water: 63-ft Feb49
(Ground surface) 63.3-ft 03Jun94

DIAGRAMMATIC
DECOMMISSIONING ACTIVITIES
(Depths from ground surface)

[1] Establish depth to bottom

[2] Perforate casing from 86↔27-ft

[3] Cut casing at 27-ft

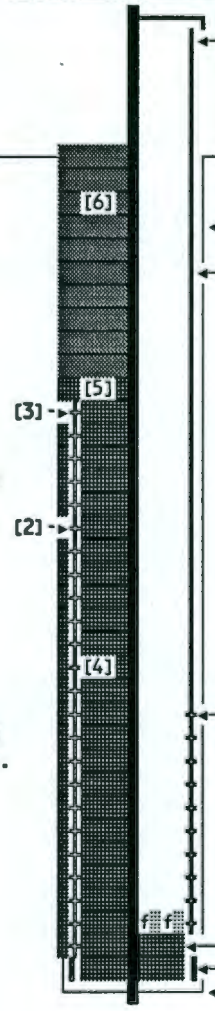
[4] Place grout by tremie from 86↔27-ft

[5] Place cement cap from 27↔25-ft

[6] Place bentonite from 25-ft to surface as casing is backpulled

NOTE:
Order of work to be determined by field conditions.

REMEDIATION:
Multiple remediations/cleaning. Bultena perforated 60↔70-ft and set cement plug to 86-ft, May78.



Elevation of reference point: [461.71-ft]
(top of casing)

Height of reference point above [1.5-ft]
ground surface

Depth of surface seal [ND]
No surface seal documented

9-in nominal hole, 0↔91-ft

8-in ID carbon steel casing, +1.5↔~91-ft

8-in casing perforations,
60↔70-ft, 4 cuts/rd/ft
70↔90-ft, 5 holes/ft

Cement plug @ 86-ft

Borehole drilled depth: [91.0-ft]

DTB=Depth to bottom,
82.3-ft, 07Jun91TV

Drawing By: TJW/1-B4-03.PLN
Date : 07Jun95
Reference : HANFORD WELLS

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	T. J. Wood	Date June 08, 1995
Project Title/Work Order		EDT No. NA
A supplemental revision by ECN to "Fitness-For-Intended-Use Evaluation Recommendations for Hanford Site 600 Area Wells, WHC-SD-EN-AP-161, Rev 0."		ECN No. 186391

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
M. A. Chamness	K6-84	X			
J. W. Fassett	H6-06	X			
M. G. Gardner (5)	S3-24	X			
C. H. Gunion	H4-83	X			
S. P. Luttrell	K6-96	X			
R. A. Meznarich	S3-27	X			
A. L. Schatz	S3-24	X			
D. E. Skoglie	S3-24	X			
W. R. Thackaberry	H6-32	X			
R. R. Thompson	H6-32	X			
M. W. Walkup	S3-24	X			
T. J. Wood	S3-24	X			
EDMC (2)	H6-08	X			
Central Files (2) A3-88	~~L8-04~~	X			

A-6000-135 (01/93) WEF067