

This is a RED Stamp

**ROCKY FLATS PLANT**  
**EMD OPERATING**  
**PROCEDURES MANUAL**

**Manual No.:** 5-21000-OPS-GW  
**Procedure No.:** Table of Contents, Rev 15  
**Page:** 1 of 2  
**Effective Date:** 05/13/93  
**Organization:** Environmental Management

**THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES:**

**VOLUME I: FIELD OPERATIONS (FO)**  
**VOLUME II: GROUNDWATER (GW)**  
**VOLUME III: GEOTECHNICAL (GT)**  
**VOLUME IV: SURFACE WATER (SW)**  
**VOLUME V: ECOLOGY (EE)**  
**VOLUME VI: AIR (AP)**

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**FOR VOLUME II: GROUNDWATER**

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GW.01	Water Level Measurements in Wells and Piezometers	2	05/12/92
DCN 92.01	Improve Form	2	10/28/92
DCN 93.01	Measuring Water Levels in Well Points	2	01/28/93
GW.02	Well Development	2	05/12/92
DCN 92.01	Practice Clarification	2	10/05/92
DCN 92.02	Update Forms to Include Form Number	2	10/22/92
DCN 93.01	Well Fluid Volumes	2	04/13/93
*DCN 93.02	Well Development Updates	2	05/13/93
GW.03	Pump-In Borehole Packer Testing	2	05/12/92
GW.04	Slug Testing	2	05/12/92
DCN 93.01	Re-title Sect.5.2 and Add Bail-down Test	2	05/05/93
GW.05	Field Measurement of Groundwater Field Parameters	2	05/12/92
DCN 92.01	Eliminate Unsafe Work Practice	2	10/26/92
GW.06	Groundwater Sampling	2	05/12/92
DCN 92.01	Form Update	2	EXPIRED
DCN 92.02	Update Forms to Include Form Number	2	10/22/92
DCN 93.01	Hydropunch	2	04/15/93
DCN 93.02	New GW Sample Collection Log	2	05/04/93
DCN 93.03	Hydropunch II	2	05/10/93

**DOCUMENT CLASSIFICATION REVIEW WAIVER**  
**PER R.B. HOFFMAN, CLASSIFICATION OFFICE**  
**JUNE 11, 1991**

**ADMIN RECORD**

A-SW-000609

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<b><u>Procedure No.</u></b>	<b><u>Title</u></b>	<b><u>Rev. No.</u></b>	<b><u>Effective Date</u></b>
GW.08	Aquifer Pumping Tests	1	05/12/92
DCN 92.01	Expired	1	05/22/92
DCN 92.02	Expired	1	05/15/92

This is a  
**CONTROLLED DOCUMENT ENVIRONMENTAL MANAGEMENT**  
 EG&G - ROCKY FLATS PLANT  
**ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)**  
 This is a RED Stamp

Procedure Number 5-21000-OPS-GW.2, Rev. 2

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Title Well Development	Date 5-13-93 <i>dw</i>	DCN Number 5-21000-OPS-93.02 <i>dw</i>
Expires 5-13-94 <i>dw</i>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Scope Limitation None		

Item Number	Page	Step or Paragraph	Changes (Use DCN Continuation Sheet for Additional Space)
1	8 of 11	2 <sup>nd</sup> bullet Sect. 5.2.1.1 <i>dw 5/10/93</i>	After the first sentence add, "The requirement for temperature stabilization may be waived in cases where the reason for instability is related to limitations associated with the purging technique, such as limited volume of purge water combined with ambient air and purge equipment temperature extremes. It is expected that this condition could exist at wells having less than 2000 ml in storage. This variance must be documented within a full explanation on the Well Development and Sampling Form" <i>(Form G.W.2A) dw 5/10/93</i>
2	9 of 11	1 <sup>st</sup> bullet <i>dw 5/10/93</i>	Change the first sentence to read, "...total fluid added will be calculated and two times the fluid lost..."
3	9 of 11	Sect. 5.2.1.1 1 <sup>st</sup> bullet <i>dw 5/10/93</i>	Add this sentence at the end of the bullet: "Additional purging will be required if after removing the required volume, the field parameters have not stabilized. In this case, well development will continue until field parameter stabilization is achieved."
4	9 of 11	Sect. 5.2.1.1 1 <sup>st</sup> bullet <i>dw 5/10/93</i>	Change the second sentence to read, "...the well within 8 hours or 2 times the amount."

**Justification (Reason for change – Provide numbers to reference corresponding items above)**

1. Accurate and stable groundwater temperature measurements are not always possible during periods of extreme weather conditions for wells with limited sample volumes. Ambient air temperatures directly affect the temperature of purging equipment which in turn can significantly alter the temperature of small purge volumes. Under these purging conditions, temperature stabilization normally cannot be achieved within a 1° C temperature range.

2. and 3. Removal of five times the volume of fluid lost during drilling is excessive and impractical for low yield wells. The proposed criteria provides a more reasonable approach since the pH and conductivity of distilled water contrasts markedly with natural groundwater quality.

4. To provide consistency with item numbers 3 and 4 of this DCN.

**DOCUMENT CLASSIFICATION REVIEW WAIVER  
 PER R.B. HOFFMAN, CLASSIFICATION OFFICE**

**JUNE 11, 1993**

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	5/14/93	<i>[Signature]</i>	User	X	5/16/93
<i>[Signature]</i>	FOM	X	5-5-93	<i>[Signature]</i>	User	X	5/10/93
				<i>[Signature]</i>	EQS		5/10/93
				<i>[Signature]</i>	Geoscience		5/11/93

Approval of Responsible Manager <i>[Signature]</i>	Date 5/5/93	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date? UPON Receipt	Date Posted
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