

ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL

Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 11
Page: 1 of 3
Effective Date: 12/20/91
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)

CONTROLLED DOCUMENT
EG&G — ROCKY FLATS PLANT
ENVIRONMENTAL MANAGEMENT DEPARTMENT

This is a RED Stamp

TABLE OF CONTENTS
FOR VOLUME III: GEOTECHNICAL

<u>Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
GT.01	Logging Alluvial and Bedrock Material	1	08/30/91
DCN 91.01	Recording lithologic descriptions and securing core boxes	1	11/15/91
DCN 91.02	Clarification of log approval for multi-use wells	1	12/03/91
GT.02	Drilling and Sampling Using Hollow Stem Auger Techniques	1	08/30/91
DCN 91.01	Unconsolidated core samples need not be peeled before sampling	1	10/29/91
DCN 91.02	Correction of well location for low Alluvial thickness	1	11/06/91
DCN 91.03	Ten foot long core barrels	1	11/15/91
GT.03	Isolating Bedrock from Alluvium with Grouted Surface Casing	1	08/30/91
DCN 91.01	Superseded by DCN 91.03	1	10/02/91
DCN 91.02	Grout procedure clarification	1	10/28/91
DCN 91.03	Change in criteria for cement grouting	1	12/12/91

ADMIN RECORD

REVIEWED FOR CLASSIFICATION/UCM
By F. J. Curran (U-110)
Date 1-12-92
A-SW-001100

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

**Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 11
Page: 2 of 3
Effective Date: 12/20/91
Organization: Environmental Management**

<u>Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
DCN 91.04	Depth of casing emplacement	1	12/17/91
DCN 91.05	Addition of Grout Ports	1	12/19/91
GT.04	Rotary Drilling and Rock Coring	1	08/30/91
DCN 91.01	Core barrel decontamination	1	10/22/91
DCN 91.02	Clarification of measuring tape decontamination requirements	1	10/29/91
DCN 91.03	Superseded by DCN 91.04	1	12/03/91
DCN 91.04	Clarification of the use of super gel-x	1	12/17/91
GT.05	Plugging and Abandonment of Boreholes	1	08/30/91
DCN 91.01	Surface casing classification	1	10/22/91
GT.06	Monitoring Wells and Piezometer Installation	1	08/30/91
DCN 91.01	Industry Standard is 1 foot into Bedrock	1	10/15/91
DCN 91.02	For the Sitewide Program, Claystone Smearing does not seem to be a problem	1	10/15/91
DCN 91.03	Superseded by DCN 91.06	1	11/08/91
DCN 91.04	Low Alluvial thickness wells	1	11/06/91
DCN 91.05	Superseded by DCN 91.08	1	11/06/91
DCN 91.06	Change in filter pack guidance	1	11/08/91
DCN 91.07	Decontamination for site-wide geological chracterization	1	11/15/91
DCN 91.08	Figure replacement (GT.6-1)	1	11/15/91
DCN 91.09	Sampling with center bit drilling	1	12/03/91

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

**Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 11
Page: 3 of 3
Effective Date: 12/20/91
Organization: Environmental Management**

<u>Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
GT.07	Logging and Sampling of Test Pits and Trenches	1	8/30/91
GT.08	Surface Soil Sampling	1	8/30/91
DCN 91.01	Clarification supplementation of GT.08 - Surface Soil Sampling	1	11/26/91
GT.09	Soil Gas Sampling and Field Analysis	1	8/30/91
GT.10	Borehole Clearing	1	8/30/91
GT.11	Plugging and Abandonment of Wells	1	8/30/91
GT.15	Geophysical Borehole Logging	1	8/30/91
DCN 91.01	No Hole will be left Unlogged at the end of the day	1	10/15/91
GT.17	Land Surveying	1	8/30/91
GT.18	Surface Geophysical Surveys	1	8/30/91
GT.19	Field Gas Chromatographs	1	8/30/91
GT.20	Procedures for Soil Interstitial Water Sampling and Sampler Installation	1	8/30/91

ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

Procedure Number 5-21000-OPS-GT.4, Rev. 1

Page 1 of 1

Title Rotary Drilling and Rock Coring	Date 12-16-91	DCN Number 5-21000-OPS- <u>GT.4</u> <u>91-04</u>
Expires <u>3/17/92</u>		Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Scope Limitation <u>Sitewide Geologic</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	7 of 10	5.3.1.1 paragraph 1	<p>Add after the first sentence: "When caving becomes a problem during drilling with water, Super Gel-X (powdered bentonite) or biodegradable drilling additives such as guar gum may be added to the RFP potable water to stop uptake of water by the formation and to prevent hole loss. All drilling additives must be pre-approved by EG&G before use in a borehole." <i>Note addition in applicable documentation.</i></p> <p style="text-align: right;"><u>12/17/91</u></p> <p style="text-align: center;"> <i>Replaces</i> CONTROLLED DOCUMENT EG&G — ROCKY FLATS PLANT ENVIRONMENTAL MANAGEMENT DEPARTMENT This is a RED Stamp </p>

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

There has historically been a problem with caving in boreholes at RFP. Using a slightly increased weight of the drilling fluid or a biodegradable additive like guar gum is often sufficient to save the borehole by slowing down or stopping caving. If these additives are not used, often the borehole is lost.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	12/17/91	<i>[Signature]</i>	User	X	12/16/91
<i>[Signature]</i>	EOM	X	12/16/91				

Approval of Responsible Manager <i>[Signature]</i>	Date/ 12/16/91	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes. By What Date?	Date Posted
---	-------------------	--	-----------------------	-------------