

Form 3160-3
August 1999

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. GALLEGOS CANYON UNIT 580	
2. Name of Operator AMOCO PRODUCTION COMPANY		9. API Well No. 30-45-30679	
3a. Address P.O. BOX 3092 HOUSTON, TX 77253		10. Field and Pool, or Exploratory KUTZ PICTURED CLIFFS, WEST	
3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700		11. Sec., T., R., M., or Blk. and Survey or Area N Sec 13 T28N R12W Mer NMP	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESW Lot N 1080FSL 1840FWL At proposed prod. zone		12. County or Parish SAN JUAN	
14. Distance in miles and direction from nearest town or post office* 10 MILES FROM BLOOMFIELD, NM		13. State NM	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		17. Spacing Unit dedicated to this well 160.00	
16. No. of Acres in Lease 43102.00		20. BLM/BIA Bond No. on file	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		22. Approximate date work will start 07/01/2001	
19. Proposed Depth 1691 MD 1791		23. Estimated duration	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5704 GL			

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed) MARY CORLEY	Date 05/23/2001
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) /s/ Joel Farrell	Name (Printed/Typed)	Date AUG 21
Title	Office	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #4481 verified by the BLM Well Information System
For AMOCO PRODUCTION COMPANY, sent to the Farmington
Committed to AFMSS for processing by Maurice Johnson on 05/29/2001 ()

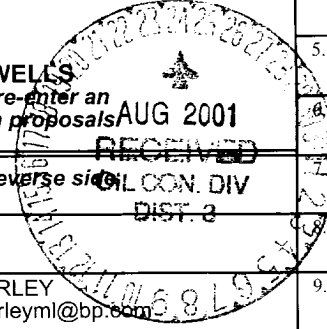
For the BLM, the following information is provided:
1. The BLM is not responsible for the accuracy of the information provided.
2. The BLM is not responsible for the accuracy of the information provided.
3. The BLM is not responsible for the accuracy of the information provided.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.



SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMSF-078905
2. Name of Operator AMOCO PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name
3a. Address P.O. BOX 3092 HOUSTON, TX 77253		7. If Unit or CA Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 281.366.4491 Ex: 281.366.0700		Well Name and No. GALLEGOS CANYON UNIT 580
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 13 T28N R12W Mer SESW 1080FSL 1840FWL		9. API Well No.
		10. Field and Pool, or Exploratory WEST KUTZ PICTURED CLIFFS
		11. County or Parish, and State SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> APDCH
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On June 15, 2001, Amoco Production Company submitted for your approval an application for permit to drill the subject well. Attached please find amendments to our original drilling and completion plan as well as the correct formation top data. Additionally, we are amending the total depth from 1691' to 1791' and the casing and cementing data for the 4 1/2" casing string is as follows:
Hole size: 6 1/4" Casing Size: 4 1/2" 10.5# J-55 ST&C

Setting Depth: 1791'
Cement: 125 SXS (261 CU FT) CLS B Lead 44 SXS (97 CU FT) Tail
Density/Yield/Water: LEAD 11.4 2.68 16.6 TAIL 15.6 1.19 5.25 Excess 70%

14. I hereby certify that the foregoing is true and correct. Electronic Submission #5664 verified by the BLM Well Information System For AMOCO PRODUCTION COMPANY, sent to the Farmington Committed to AFMSS for processing by Lucy Bee on 07/18/2001 ()	
Name (Printed/Typed) MARY CORLEY	Title AUTHORIZED REPRESENTATIVE
Signature	Date 07/13/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>/s/ Joel Farrell</u>	Title	Date <u>AUG 21</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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AMOCO

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-30679	Pool Code 49680	Pool Name KUTZ PICTURED CLIFFS WEST
Property Code COG 570	Property Name Gallegos Canyon Unit	Well Name # 580
Owner No. COG 570	Operator Name AMOCO PRODUCTION COMPANY	Elevation 5709

10 Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	28 N	12 W		1080	SOUTH	1840	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

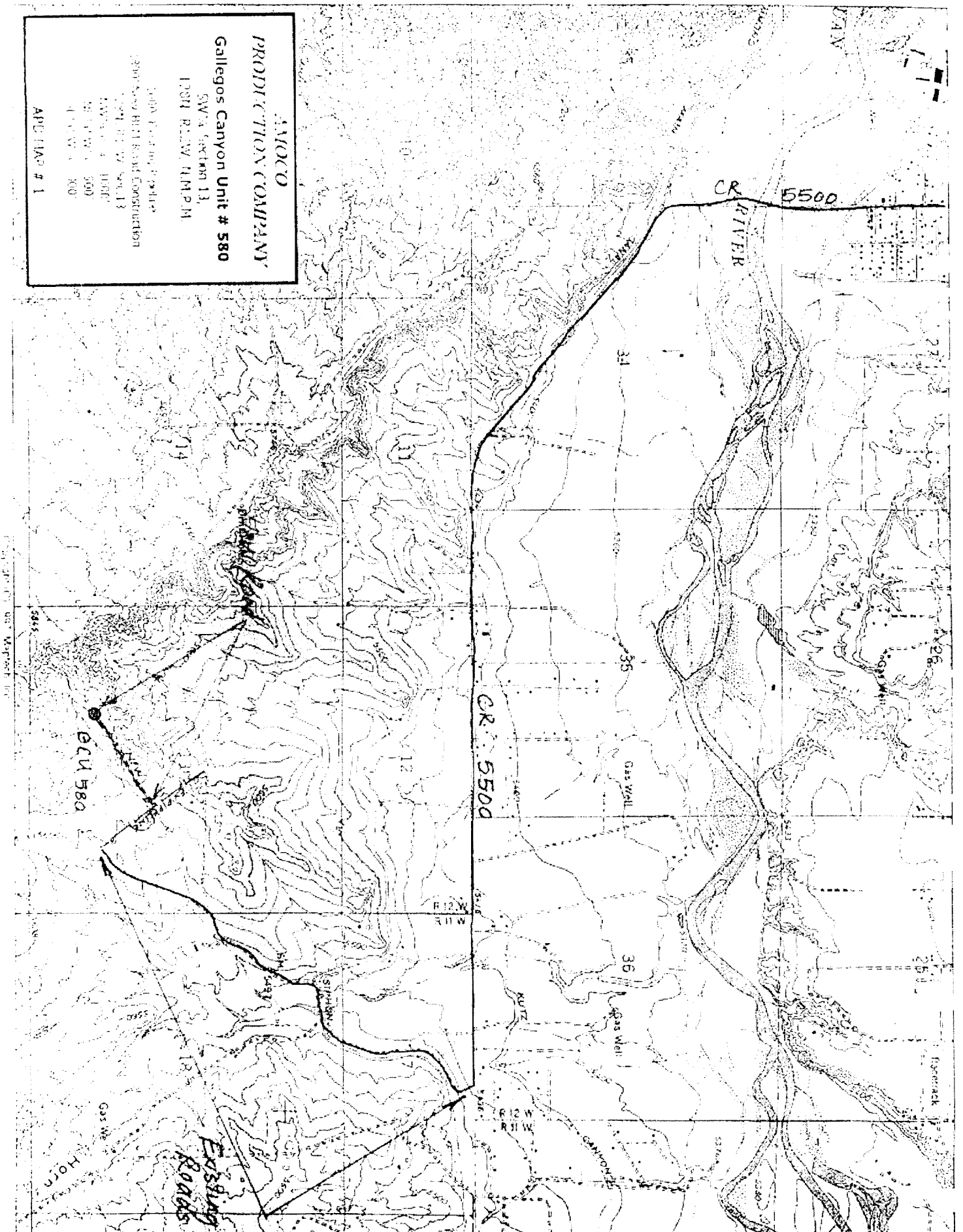
Dedicated Acres 166.00	Joint or Infill	Consolidation Code	Order No.
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**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <i>Mary Corley</i> Printed Name MARY CORLEY Title Sr. Regulatory Analyst Date 5.23.2001
	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. April 16, 2001 Date of Survey Signature and Seal of Professional Surveyor 7016 Certificate Number

(R) - GLO Record

APPENDIX #1



**AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: GCU 580
Lease: GALLEGOS CANYON UNIT
County: San Juan
State: New Mexico
Date: July 13, 2001 revised

Well No: 580
Surface Location: 1080' FSL & 1840' FWL
 Sec. 13, 28N-12W
Field: West Kutz Pictured Cliffs

OBJECTIVE: Drill 200' into the Pictured Cliffs, set 4 1/2" casing to TD, perf & stimulate Pictured Cliffs interval							
METHOD OF DRILLING				APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 5709		Estimated KB: 5720	
Rotary/Top Drive		0 - TD					
LOG PROGRAM				MARKER			
TYPE		DEPTH INVERAL				SUBSEA	
Open Hole (Platform Express)		TD to base of surface casing				MEAS. DEPTH	
				Ojo Alamo		5346 374	
				Kirtland		5253 467	
				Fruitland Coal *		4429 1291	
				Pictured Cliffs #		4129 1591	
REMARKS: - Please report any flares (magnitude & duration).				TOTAL DEPTH		3929 1791	
				# Completion interval		* Possible Pay	
SPECIAL TESTS				DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE				FREQUENCY DEPTH		FREQUENCY DEPTH	
None				None		Geolograph 0-TD	
REMARKS:							

MUD PROGRAM:						
Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L cc's/30 min	Other Specification	
0 - 120-135 3 jts.	Spud	8.6-9.2				
120-135 - TD (1)	Water/LSND	8.6-9.2				
REMARKS: (1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.						

CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)						
Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Point, Cement, Etc.
Surface/Conductor	120-135	7"	J 55 ST&C	23#	8.75"	1
Production	1791	4 1/2"	J 55 ST&C	10.5#	6.25"	1,2
REMARKS: (1) Circulate Cement to Surface (2) Set casing 200' below top of Pictured Cliffs						

CORING PROGRAM:	
None	
COMPLETION PROGRAM:	
Rigless, Single Stage Hydraulic Frac	
GENERAL REMARKS:	
Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.	
Form 46 Reviewed by:	Logging program reviewed by: DLJ
PREPARED BY:	APPROVED:
KAS/JLP	
Form 46 6-99 KAT	

**Amoco Production Company
BOP Pressure Testing Requirements**

Well Name: Gallegos Canyon Unit 580
County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	275		
Kirtland	367		
Fruitland Coal	906		
Pictured Cliffs	1491		

** Note: Determined using the following formula: $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 750 PSI
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**SAN JUAN BASIN
Pictured Cliffs Formation
Pressure Control Equipment**

Background

The objective Pictured Cliffs formation maximum surface pressure is anticipated to be less than 1000 PSI, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth. No abnormal temperature, pressure, or Hydrogen Sulfide gas is anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth

11" nominal or 7 1/16", 3000 PSI double ram
preventer with rotating head.

All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 750 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include Kelly cock, upper Kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure at the appropriate intervals.