



GEOSEARCH LOGGING INC.

Scale 1:1200 (1"=100') Imperial

Well Name: PIONEER RESOURCES, BILBO FEDERAL # 11-24
Location: SEC: # 24, T-32S--R-66W----LAS ANIMAS CO, COLORADO
Licence Number: AFE: # 021698 Region: RATON-PURGATOIRE R
Spud Date: 12/03/2011 Drilling Completed: 12/08/2011
Surface Coordinates: 592' FNL & 264' FWL
NW/NW Sec: 24, T 32S--R 66W ____ MERIDIAN: # 6
Bottom Hole VERTICAL HOLE
Coordinates: (COAL BEDS)
Ground Elevation (ft): 7,570' K.B. Elevation (ft): 7,579'
Logged Interval (ft): 940' To: 2,390' Total Depth (ft): 2,390' T.D.
Formation: Ratón Coal, Ratón Cong, Vermejo, Trinidad Sandstones
Type of Drilling Fluid: DRILLING ON AERATED WATER, (7ppg.)

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: PIONEER NATURAL RESOURCES USA INC.
Address: 1401 17th ST. STE 1200
DENVER, COLORADO 80202
PHONE: (303) 675-2611-----FAX: (303) 294-1251

GEOLOGIST

Name: Shannon Osterhout, Brad Michalchuk, Neal Dannemiller
Company: PIONEER NATURAL RESOURCES USA INC..
Address: 1401 17th ST. STE 1200
DENVER, COLORADO 80202
NEAL: (303) 675-2645 & SHANNON: (303) 675-2734

DRILLING CONTRACTOR

PIONEER NATURAL RESOURCES USA INC.
27000 HWY 12
TRINIDAD, COLORADO 81082
PIONEER RIG NO. 3
FIELD #: 70830--RATON BASIN-PURGATOIRE RIVER
API # : 05-071-09804-0000

WELL SITE GEOLOGIST

WAYNE NIX Cell----(870) 826-6197
BETTY NIX Cell----(870) 826-6196
GEOSEARCH LOGGING INC.
P.O. Box 6005
Edmond, OK. 73083-60
PHONE: (405) 340-5545
FAX: (405) 348-8303

COMPANY MEN

RAMON GONZALES & DAVID MARTINEZ
PIONEER NATURAL RESOURCES USA INC..
 27000 HWY 12
 TRINIDAD, COLORADO 81082
 PHONE: (303) 675-2611

Additional Comments:

2 Manned Logging Service
 Start Date was 12/03/2011 @ 940 ft.
 SET 8 5/8" SURFACE CASING
 TO 922 ft. ON THE 12/05/2011
 (DRILLED ON AERATED WATER)
 T.D. Depth @ 2,390 ft. T.D. on the 12/08/2011
 RELEASED: 12/08/2011.....

ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

ACCESSORIES

FOSSIL		Ostra		Chtdk		Sandy		Ssstrg
	Algae		Pelec		Chtlt		Silt	TEXTURE
	Amph		Pellet		Dol		Sil	
	Belm		Pisolite		Feldspar		Sulphur	
	Bioclst		Plant		Ferrpel		Tuff	
	Brach		Strom		Ferr			
	Bryozoa	MINERAL			Glau	STRINGER		
	Cephal			Gyp			Anhy	
	Coral			Hvymin			Arg	
	Crin			Kaol			Bent	
	Echin			Marl			Coal	
	Fish			Minxl			Dol	
	Foram			Nodule			Gyp	
	Fossil			Phos			Ls	
	Gastro			Pyr			Mrst	
	Oolite			Salt			Sltstrg	

OTHER SYMBOLS

POROSITY			Organic		Spotted		Moderate		Subang
	Earthy		Pinpoint		Ques		Poor		Angular
	Fenest		Vuggy		Dead				
	Fracture					ROUNDING		INTERVAL	
	Inter	OIL SHOW		SORTING			Rounded		Core
	Moldic		Even		Well		Subrnd		Dst



