165		ation Division, [] anch Drive VI 38240		EOD	M APPROV	FD		
(August 1999) UNITED STATE	-			OMB Expires 1	No. 1004-0 November 3	136		
DEPARTMENT OF THE BUREAU OF LAND MANA	AGEMENT	हिंद	7	5. Lease Serial No NM-68820 6. If Indian, Allot		Namo		
APPLICATION FOR PERMIT TO D			-					
1a. Type of Work: X DRILL REEN	TER			7. If Unit or CA Ag				
1b. Type of Well: Oil Well Oil Gas Well Other 2. Name of Operator	8. Lease Name and Paloma Blanco 1	Well No. 9 Federal	Com					
Devon SFS Operating Inc Eneron Prod		9. API Well No. 30-025-34950	-300	25-360				
3a. Address 20 North Broadway, Ste 1500	10. Field and Pool, o Bell Lake (Mo		mia					
 Location of Well (Report location clearly and in accordance with At surface660' FNL & 935' FEL At proposed prod. zone 	ith any State i	requirements.*)		11. Sec., T., R., M., Sec 19-T23S-R3		Survey or Area		
14. Distance in miles and direction from nearest town or post office* 20 miles west of Jal, New Mexico		Controlled Weter 8	tesin	12. County or Parisl Lea County	1	13. State NM		
 15. Distance from porposed* 660' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. o 320	of Acres in lease	ng Unit dedicated to this well					
 18. Distance from proposed location* n/a to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Ртор 14,00	osed Depth 0'	20. BLM/I UT-1195	BLM/BIA Bond No. on file -1195				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3506' GR	10/0	roximate date work will sta 01/2002	rt*	23. Estimated durat 50 days	ion			
The following, completed in accordance with the requirements of Onsi 1. Well plat certified by a registered surveyor. 2. A Drilling Plan				is form: unless covered by an e	existing bon	d on file (see		
3. A Surface Use Plan (if the location is on National Forest System La SUPO shall be filed with the appropriate Forest Service Office).	ands, the	5. Operation certifi	pecific infor	mation and/or plans as	may be requ	uired by the		
25. Signature Title		ne (Printed/Typed) aren Cottom			Date 	08/05/2002		
Engineering Technician Approved by (Signature) /s/ Mary J. Rugwell	Na	me (Printed Typed Mary	J. Rug	veli	DateSE	P 1`0 2002		
FOR FIELD MANAGER				IELD OFFI	.∟ ^⊑			
Application approval does not warrant or certify the the applicant holds operations thereon. Conditions of approval, if any, are attached.	s legal or equi	table title to those rights in	the subject	lease which would enti	tle the appli 1 YEA	cant to conduct		
Title 18 U.S.C Section 1001 and Title 43 U.S.C. Section 1212, make it States and false, fictitious or fradulent statements or representations as *(//OPER/SOCRE/SO	t a crime for an to any matter	ny person knowingly and within its jurisdiction.	willfully to m	nake to any department	or agency o	f the United		
PROPERTY NO. 308.77 (6) POOL CODE 72000 6 ST EFF. DATE 12-2-02 6 FL API NO. 30-02 5-36065:	Hobbs	UENE	:Kal Ri Ial Sti	SUBJECT TO EQUIREMENT PULATIONS	is and			
Contraction of the second s	297.52 VICE	1.				<i>Q</i> L		

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DRILLING PROGRAM



Attached to Form 3160-3 Devon SFS Operating, Inc. **PALOMA BLANCO 19 FEDERAL COM #1** (A) 660' FNL & 935' FEL, Section 19, T-23-S, R-34-E Eddy County, New Mexico

- 1. Geologic Name of Surface Formation Alluvium
- 2. <u>Estimated Tops of Important Geologic Markers</u>

Rustler	1,050'
Salt	4,454'
Delaware	5,000'
Bone Spring	8,600'
Wolfcamp	10,600'
Strawn	11,900'
Atoka	12,300'
Morrow	12,900'
TD	14,000'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

The estimated depths at which water, oil and gas will be encountered are as follows.

Water:	None expected in area
Oil	Bone Spring @ 9,100'
Gas:	Upper Morrow @ 13,100'

- 4. Proposed Casing Program: See Attached casing design
- 5. Pressure Control Equipment: See Exhibit A
- 6. Drilling Fluid Program: See Exhibit C
- 7. Auxiliary Equipment: A mud-logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below 5500' to TD.
- 8. Testing, Logging and Coring Program:

Drill Stem Test: None Planned Logging: Dual Laterolog W/MSFL and Gamma Ray 11,800' – 14,000' Compensated Neutron/Litho-Density/Gamma Ray 5000' – 11,800' & 11,800' – 14,000' Compensated Neutron/Gamma Ray (thru csg) Surface –5000'

Coring: No conventional cores are planned



9. Abnormal Pressures, Temperatures and Potential Hazards

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Abnormally high-pressured zones with a bottom hole pressure of approximately 7500 psi could possibly be encountered while drilling the Pennsylvanian interval. Sufficient barite will be on location to enable the weighting up to the estimated 11.5 ppg to control any high-pressure zone encountered. Along with the above mentioned primary control, a Blow Out Preventer System as outlined in **Exhibit B** will be utilized should the need arise to shut the well in prior to running and cementing the drilling liner. The estimated bottom hole temperature is 170° F. No Hydrogen Sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major lost circulation zones have been reported in the offsetting wells.

10. Anticipated Starting Date and Duration of Operations

The road & location were constructed under the original APD approval. The anticipated spud date for the project is in October 1, 2002. The drilling operation should require approximately 50 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.



EXHIBIT A OPERATIONS PLAN DEVON SFS OPERATING, INC PALOMA BLANCO 19 FEDERAL COM #1 SECTION 19, T-23S, R34-E LEA COUNTY, NM MEXICO

- 1. Drill a 17 ¹/₂" hole to approximately 1075'
- Run 13 3/8" 48.0 ppf H-40 ST&C casing. Cement with 350 sx 35/65 POZ w 6% gel & ¼ pps Cello-Flake followed by 200 sx Class "C" cement containing 2% CaCl2. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe.
- 3. Wait on cement twelve hours prior to cutting off.
- 4. Nipple up an annular BOP system and test casing to 600 psi. WOC twenty-four (24) hours prior to drilling out.
- 5. Drill a $12 \frac{1}{4}$ " hole to approximately 5000'.
- 6. Run 9 5/8" 40.0 ppf N-80 & HCK-55, LT&C casing. Cement with 1200 sx 50/50 POZ "C" w/10% gel 5% salt and ¼ pps celloflake followed by 250 sx Class "C" with 2% CaCl2. Run guide shoe on bottom and float collar two joints from bottom. Cemtralize every other joint for bottom 400' of casing and place two centralizers in surface casing. Thread lock bottom 2 joints.
- 7. Wait on cement for twelve hours prior to cutting off.
- 8. Nipple up and install a Double Ram and Annular BOP system with choke manifold.
- 9. Test BOP system to 3000 psi. Test casing to 1500 psi.
- 10. Drill 8 $\frac{3}{4}$ " hole to the first good lime section after drilling into the Wolfcamp, which is anticipated to be at approximately $\pm 11,800$ '. Run logs.
- Run 11,800' of 7" 26.HCP-110, LT&C casing set @ 11,800'. Cement with 500 sx "Light" cement followed with 300 sx Calss "H". Run guide shoe on bottom and float collar two joints off bottom. Centralize bottom 1000' of casing with on centralizer on every other joint. Thread lock bottom two joints. Our plan is to bring the top of cement to ±6000.
- 12. Nipple down BOP. Set slips. Cut off casing. Nipple up 10000 psi BOP Stack. Test to 10000 psi.
- 13. Test casing to 2500 psi
- 14. Drill a 6 1/8" hole to 14,000'. Log run and cement 4 ½" 13.5 ppf P-110 LT&C flush joint liner from 11,650' 14,000'. Cement w/250 sx Class "H" containing necessary additives. Lay down setting tool and RIH with a 6 1/8" bit to dress off the liner top. Perform negative test on liner top.
- 15. Clean out inside of $4\frac{1}{2}$ " liner.
- 16. Run production equipment and test well as necessary.



EXHIBIT C DRILLING FLUID PROGRAM DEVON SFS OPERATING, INC PALOMA BLANCO 19 FEDERAL COM #1 SECTION 19, T-23S, R-34E LEA COUNTY, NEW MEXICO

<u>0-1075'</u>

Spud mud consisting of fresh water gel flocculated with Lime. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and Vis -40.

<u>1075' - 5000'</u>

Drill out with brine water circulating the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW 10.0 ppg and Vis-28.

5000 - 11,800

Drill out with fresh water circulating the outer portion of the reserve pit. Maintain ph at 8.5 - 9.5 with caustic and sweep the hole as necessary with ground paper. Keep mud weight as low as possible. MW-8.4/8.6 ppg and Vis-28.

<u>11,800' - 14,000'</u>

Drill out with brine containing MF-55, circulating the steel pits. At 12,000' mud up existing brine with XCD polymer/Drispac Plus mud system to an initial mud weight of 11.0 ppg with a 38-40 Vis. Add barite as required to control formation pressures and shale.



EXHIBIT C AUXILIARY EQUIPMENT DEVON SFS OPERATING, INC PALOMA BLANCO 19 FEDERAL COM #1 SECTION 19, T-23S, R-34E LEA COUNTY, NEW MEXICO

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DRAWWORKS	National 80-B
ENGINES	National 3 Section Compound w/3 Caterpillar D379 diesel engines
ROTARY	27-1/2" National C-275
MAST/SUB	Derrick Services International 142' jackknife. 25' high substructure
TRAVELING EQUIPMENT	National 545-G 350 ton hook and block. National P-400 ton swivel
PUMPS	Two National 8-P-80, 6 ¹ /4" X 8 ¹ /2" 800 HP triplex pumps charged by 6" x 8" centrifugal pump
PIT SYSTEM	Three steel mud pits with lighting mixers. Two 6" X 8 " centrifugal pumps each driven by a 75 hp electric motor.
Light	Two 320 KW AC generators each powered by a turbocharged diesel engine
BOP EQUIP	13 5/8" 5000 psi WP double ram and 13 5/8" 5000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.



DEVON SFS OPERATING, INC MULTI-POINT SURFACE USE AND OPERATIONS PLAN PALOMA BLANCO 19 FEDERAL COM #1 SECTION 19, T-23S, R-34E LEA COUNTY, NEW MEXICO

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed by rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operations.

- 1. Location Construction
 - a. Exhibit E is a 7.5 minute topographic map which shows the location of the wellsite and roads in the vicinity. The location is situated approximately 20 miles West of Jal, New Mexico.
 - b. Directions:
 - i. From the intersection of State Hwy 128 & CR-21, go North 6.5 miles and turn right (East) 0.4 miles to the proposed location.

2. ACCESS ROAD.

- a. ± 0.4 miles of new road was built from the existing road to the new location.
- 3. LOCATION OF EXISTING WELLS.
 - a. The well locations in the vicinity of the proposed well are show in Exhibits E.
- 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.
 - a. There are no producing gas wells on this lease at this time.
 - b. In the Event the well is productive, the necessary production equipment will be installed on the drilling pad.
- 5. LOCATION AND TYPE OF WATER SUPPLY.
 - a. It is planned to drill the well with both fresh water and brine water systems. Both types of waters will be hauled to the location by truck over existing roads. Both types will be obtained from commercial sources.
- 6. SOURCES OF CONSTRUCTION MATERIALS.
 - a. Any caliche required for construction of the drilling pad will be obtained from a pit approved by the BLM.
- 7. METHODS OF HANDLING WASTE DISPOSAL.
 - a. Drill cuttings will be disposed of in the reserve pits.



- b. Drilling fluid will be allowed to evaporate in the result pits until the pits are dry.
- c. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- d. Oil produced during operations will be stored in tanks until sold.
- Human waste will be disposed of per current standards. e.
- Trash, waste paper, garbage, and junk will be collected in trash trailers and f. disposed of in an approved waste facility such as a land fill. The trash trailers will contain all of the material to prevent scattering by the wind.
- g. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

a. None required at this time.

9. WELLSITE LAYOUT

- a. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.
- b. The ground surface of the location is relatively flat. Minor cutting will be required to level the pad areas, which will be covered with at least six inches of compacted caliche.
- c. The reserve pits will be plastic lined.
- d. A 400' x 400' work area which will contain the pad and pit area has been staked and flagged.

10. PLAN FOR RESTORATION OF THE SURFACE

- a. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.
- b. Unguarded pits, if any, containing fluid will be fenced until they have been filled.
- If the proposed well is non-productive, requirements of the Bureau of Land Management and the one-Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 300 days after abandonment. c. If the proposed well is non-productive, all rehabilitation and/or vegetation

robbs 00D

11. TOPOGRAPHY

a. The wellsite and access route are located in a relatively flat area.

- b. The top soil the wellsite and access route is sandy.
- c. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some mesquite bushes, and shinnery oak.
- d. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

12. LESSEE'S AND OPERATOR'S REPRESENTATIVE

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Bill Greenlees	Don Mayberry
Sr. Operations Engineer Advisor	Superintendent
Devon Energy Production Company, L.P.	Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500	Post Office Box 250
Oklahoma City, OK 73102-8260	Artesia, NM 88211-0250
(405) 552-8194 (office)	(505) 748-3371 (office)
(405) 203-7778 (Mobile)	(505) 746-4945 (home)

Certification

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I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed:

Date: <u>August 5, 2002</u>



NOTES REGARDING BLOWOUT PREVENTERS Devon SFS Operating, Inc. PALOMA BLANCO 19 FEDERAL COM #1 (A) 660' FNL & 935' FEL, Section 19, T-23-S, R-34-E Lea County, New Mexico

- 1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
- 2. Wear ring will be properly installed in head.
- 3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
- 4. All fittings will be flanged.
- 5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
- 6. All choke lines will be anchored to prevent movement.
- 7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
- 8. Will maintain a kelly cock attached to the kelly.
- 9. Hand wheels and wrenches will be properly installed and tested for safe operation.
- 10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
- 11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.



UNITE STATES DEPARTMENT OF THE INFINIOR Bureau of Land Management Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Street or Box: City, State: Zip Code: Devon SFS Operating, Inc. 20 North Broadway, Suite 1500 Oklahoma City, Oklahoma 73102-8260

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.:

Legal Description of Land:

Formation(s):

Bond Coverage:

BLM Bond File No.:

Authorized Signature:

NM-68820

320 acres 19-T23S-R34E

Bell Lake (Morrow)

Nationwide

UT-1195

Bill Greenlees

Sr. Operations. Engineering Advisor

8/05/02



Date:

Title:







Energy, Minerals and Natural Resources Departy

Form C-102 Revised February 10, 1994 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV P.O. BOX 2080, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name 1200C **U1:9** 36065 5--02 Bell Lake Morrow Code **Property** Name Property Well Number 30<u>8</u> PALOMA BLANCO 19 FED. COM. 1 ENER Prepar Name OGRID No. Elevation LM 1013 Ćo, 20305 Devon SFS Operating, 3506 Surface Location UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County А 19 23 S 34 E 660 NORTH 935 EAST LEA Bottom Hole Location If Different From Surface UL or lot. No. Section Township Lot Idn Range Feet from the North/South line Feet from the East/West line County **Dedicated Acres** Joint or Infill **Consolidation** Code Order No. 320 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 **OPERATOR CERTIFICATION** I hereby certify the the information d herein is true and complete to the ----ta 35 at of my knowledge and belief. DETAIL Signature Bill Greenlees Printed Name _______3498.5' 3504.5 Sr. Operations Advisor 0 Title August 5, 2002 3512.5 3505.1' Date DETAIL SURVEYOR CERTIFICATION I hereby certify that the well location on this plat was plotted from field notes of nctual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief. NOVEMBER 30, 1999 Date Surveyed DC Signature & Seel of Professional' Surveyor MEX کر Ep 1-30-99 0 \tilde{c} Certificate No. RONALD J EIDSON OFTS (1800) No CONALD ŝ obbs 3239 hand an G C 12641 12185 2327552

Well na Operato String t	or: Dev	von Energy face	/	Palo	ma Blanc	:o 19-1			
Locatio	n: Ne	w Mexico							
Design Collaps	paramet	ers:		Minimun Collapse:	n design fa	ctors:	Environm H2S conside	No	
Mud weight: 8.800 ppg Design is based on evacuated pipe.		Design factor 1.125			Surface temperature: 75 Bottom hole temperature: 90 Temperature gradient: 1.40 Minimum section length: 1,000				
				Burst: Design fa	ctor	1.00	Minimum Di	nft:	2.250 in
BurstMax anticipated surface pressure:pressure:0.080 psi/ftInternal gradient:0.080 psi/ftCalculated BHP586 psiNo backup mud specified.		<u>Tension:</u> 8 Round STC: 8 Round LTC: Buttress: Premium: Body yield:		1.80 (J) 1.80 (J) 1.60 (J) 1.50 (J) 1.60 (B)	Non-directional string. Re subsequent strings: Next setting depth: 5,000				
		Tension is Neutral po	based on ai bint:	r weight. 937 ft	Next mu Next set Fracture Fracture Injectior	10.000 ppg 2,597 psi 10.500 ppg 1,075 ft 586 psi			
Run Seq	Segment Length	Size	Nominal Weight	Grade	End Finish	True Vert Depth	Measured Depth	Drift Diameter	Est. Cost
1	(ft) 1075	(in) 13.375	(lbs/ft) 48.00	H-40	ST&C	(ft) 1075	(ft) 1075	(in) 12.59	(\$) 13332
Run Seq 1	Collapse Load (psi) 491	Collapse Strength (psi) 740	Collapse Design Factor 1.51	Burst Load (psi) 586	Burst Strength (psi) 1730	Burst Design Factor 2.95	Tension Load (kips) 51.6	Tension Strength (kips) 322	Tension Design Factor 6.24 J

Devon Energy

Date: June 4,2002 Oklahoma City, Oklahoma

Collapse is based on a vertical depth of 1075 ft, a mud weight of 8.8 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Remarks:

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Well n				Palo	ma Blanc	o 19-1			
Opera		von Ener	ЭУ						
String	type: Int	ermediate							
Locatio	on: Ne	w Mexico							
	n parame	ters:		Minimur	n design fa	ctors:	Environm	ent:	
Collap				Collapse:			H2S consid	lered?	No
Mud weight: 10.000 ppg Design is based on evacuated pipe.		-	Design factor 1.125		Surface temperature: 75 °F Bottom hole temperature: 145 °F Temperature gradient: 1.40 °F/10 Minimum section length: 1,000 ft				
				Burst:				-	·
Burst				Design fa	cior	1.00			
	anticipated	1 surface							
	ressure:		1,390 psi						
	mal gradier		0.268 psi/ft	Tension:			Non-direction	onal string.	
Calc	ulated BHI	2	2,727 psi	8 Round S		1.80 (J)		risi on igi	
Nie I				8 Round L	TC:	1.80 (J)			
NO L	аскир тис	specified.		Buttress:		1.60 (J)			
				Premium:	4.	1.50 (J)	D 1		
				Body yield].	1.60 (B)		uent strings:	
				Tension is	based on air	weight		tting depth: Jd weight:	11,800 ft 10.000 ppg
				Neutral po		4,256 ft		tting BHP:	6,130 psi
				·		,		e mud wt:	10.500 ppg
							Fracture		5,000 ft
				Estimated	cost: 6	2,357 (\$)	Injection	n pressure	2,727 psi
Run	Segment		Nominal		End	True Vert	Measured	Drift	F-4
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Est. Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	2000	9.625	40.00	N-80	LT&C	2000	2000	8.75	25450
1	3000	9.625	40.00	HCK-55	LT&C	5000	5000	8.75	36907
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength		Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
-				·· ·			v	······································	
2 1	1039 2597	2960 4230	2.85	1925	5750	2.99	200	737	3.68 J

Devon Energy

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Date: June 4,2002 Oklahoma City, Oklahoma

Collapse is based on a vertical depth of 5000 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Remarks:

Jr homs apse purposes. B 9 101172 /3 / 8 / 5 / 6 / 1 A / 6 / 6 / 1 D / 6 / 6 / 1 D / 6 / 6 / 1 D / 6 / 6 / 1 N / 6 / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 6 / 1 D / 7 / 1 D / 6 / 1 D / 7 / 1 D 10 - cbbs OCD 790

Well name:			Paloma Bla	nco 19-1	
Operator:	Devon Ener Production	gу			
Location:	New Mexico			·	
Design parar	neters:		Minimum desigr	n factors:	Environment:
<u>Collapse</u> Mud weight: Design is ba	ased on evacu	10.000 ppg ated pipe.	Collapse: Design factor	1.125	H2S considered? No Surface temperature: 75 °F Bottom hole temperature: 240 °F Temperature gradient: 1.40 °F/100ft Minimum section length: 1.000 ft
<u>Burst</u> Max anticipa	ated surface		<u>Burst:</u> Design factor	1.00	
pressure		1,061 psi			
Internal grac Calculated E No backup r		0.430 psi/ft 6,130 psi	Tension: 8 Round STC: 8 Round LTC: Buttress: Premium: Body yield:	1.80 (J) 1.80 (J) 1.60 (J) 1.50 (J) 1.60 (B)	Non-directional string.
			Tension is based o Neutral point:	n air weight. 10,020 ft	

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
1	11800	7	26.00	HCP-110	LT&C	11800	11800	6.151	122661
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
1	(psi) 6130	(psi) 7800	Factor 1.27	(psi) 6130	(psi) 9950	Factor 1.62	(kips) 306.8	(kips) 693	Factor 2.26 J

Devon Energy

Date: June 4,2002 Oklahoma City, Oklahoma

Remarks: Collapse is based on a vertical depth of 11800 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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	Devon Ener Liner: Produc		Paloma Bla	anco 19-1		
Location:	New Mexico					
Design param Collapse	neters:		Minimum desig Collapse:	n factors:	Environment: H2S considered?	No
Mud weight: Design is bas	sed on evacu	11.500 ppg ated pipe.	Design factor	1.125	Surface temperature: Bottom hole temperatu Temperature gradient: Minimum section lengt	75 °F re: 271 °F 1.40 °F/100fl
<u>Burst</u> Max anticipat	ted surface		<u>Burst:</u> Design factor	1.00		,
pressure:	leu sunace	2,350 psi			Liner top:	11 900 #
Internal gradi	ient:	0.430 psi/ft	Tension:		Non-directional string.	11,800 ft
Calculated B	HP	8,364 psi	8 Round STC:	1.80 (J)	there an obtained our ing.	
No backup m	nud specified.		8 Round LTC: Buttress: Premium: Body yield:	1.80 (J) 1.60 (J) 1.50 (J) 1.60 (B)		
			Tension is based o	n air weight.		

Neutral point:

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Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (Ibs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2200	4.5	13.50	P-110	LT&C	14000	14000	3.795	12327
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	8364	10680	1.28	8364	12410	1.48	29.7	338	11.38 J

13,627 ft

Devon Energy

Date: June 4,2002 Oklahoma City, Oklahoma

Remarks:

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For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 14000 ft, a mud weight of 11.5 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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ARCHAEOLOGICAL SERVICES

February 9, 2000

Mr. Phil Stinson OGE DRILLING 550 West Texas, Suite 1140 Midland, TX 79701

Dear Mr. Stinson:

Enclosed please find your copy of Desert West Archaeological Services, Inc. (DWAS) archaeological survey report for SANTA FE SNYDER CORPORATION's proposed Paloma Blanco "19" Federal Com. Well No. 1 (660' FNL; 935' FEL) and associated access road in Section 19, T23S, R34E, NMPM, Lea County, New Mexico. This survey was conducted to evaluate any potential effect that SANTA FE SNYDER CORPORATION's proposed Paloma Blanco "19" Federal Com. Well No. 1 (660' FNL; 935' FEL) and associated access road might have on the historic properties.

No cultural resources were encountered during this survey. Therefore, we are recommending that archaeological clearance be granted for this undertaking of SANTA FE SNYDER CORPORATION's proposed Paloma Blanco "19" Federal Com. Well No. 1 (660' FNL; 935' FEL) and associated access road as presently staked. No further archaeological work should be required.

An archaeologist at the Bureau of Land Management will review this report and decide whether or not SANTA FE SNYDER CORPORATION should proceed with this undertaking. Someone should advise you of that decision in that agency.

We appreciate this opportunity to serve you. If you have any questions, or feel that we might be of additional service, please call our office.

Sincerely,

Arita Slate

Enclosure

Xc: Bureau of Land Management, Carlsbad Field Office, Carlsbad, NM (2)



P.O. Box 645 · Carlsbad, NM 88220 · Phone (505) 887-7646 · Fax (505) 887-2264

APPENDIX B.

TITLE PAGE/ABSTRACT/ NEGATIVE SITE REPORT CARLSBAD FIELD OFFICE

1. BLM Report No. 2. (ACCEPTED) (REJECTED) 3. NMCRIS No. 67207 4. Title of Report (Project Title): 5. Project Date(s) Archaeological survey of Santa Fe Snyder Corporation's proposed Paloma Blanco 02-08-2000 19 Federal Com. Well No. 1 and associated access road in Section 19, T23S, R34E, 6. Report Date -NMPM, Lea, NM. 02-08-2000 7. Consultant Name & Address: 8. Permit No. Direct Charge: David Wilcox 123-2920-99-U Name: Desert West Archaeological Services NM99-077 Address: P.O. Box 645, Carlsbad, NM 88220 9. Consultant Report No. Authors Name: David Wilcox DWAS 00-14F Field personnel names - David Wilcox Phone (505) 887-7646 10. Sponsor Name and Address: 11. For BLM Use only. Indiv. Responsible: Mr. Phil Stinson 12 ACREAGE: Name: OGE Drilling Total No. of acres surveyed - 8.54 Address: 550 West Texas, Suite 1140 Per Surface -Phone (915) 682-6373 Ownership: State of New Mexico Lands with Federal Minerals 13. Location & Area: (Maps Attached if negative survey) a. State - NM b. County - Lea c. BLM Field Office: Carlsbad d. Nearest City or town: Jal, New Mexico e. Location: Section 19, T23S, R34E (ACCESS ROAD - sw/4, ne/4, nw/4; se/4, ne/4, nw/4; sw/4, nw/4, ne/4; se/4, nw/4, ne/4; sw/4, ne/4, ne/4.) Well Pad footages: 660' FNL; 935' FEL (ne/4, ne/4) f. 7.5 ' Map Name(s) and Code Numbers(s): Tip Top Wells, NM (1984 [32103-C5]). g. Area: Block: Impact: within the staked area Surveyed: 400' x 400' Linear: Impact: 50' x 2125'

Surveyed: 100' x 2125'

BLM/RDO 1/95



14. a. Records Search:
Location: BLM and ARMS Date: 02-08-2000 Conducted by: David Wilcox List by LA# All sites within .25 miles of the project: (Those sites within 500' are to be shown on the project map)
 b. Description of undertaking: Class III pedestrian survey of Santa Fe Snyder Corporation's proposed Paloma Blanco 19 Federal Com. Well No. 1 and associated access road in Section 19, 723S, R34E, NMPM, Lea, NM. This proposed access road connects to Delaware Basin Road (C-21) to the west. c. Environmental Setting (NRCS soil designation; vegetative community; etc.) Vegetation – Yucca, snakeweed, creosote, mesquite, prickly pear cactus, eagle claw cactus, assorted grasses and soil brush. Topography – The project lies on a loamy flat terrain with a slight slope towards the north-northeast. This terrain slopes towards San Simon Sink's physiographic feature. The area around the proposed well pad and eastern ¼ of the associated access road is on a terraced feature that has inducated caliche everywhere. The eastern ¼ of the access road) lies in a loamy catchment basin that has created a thick thicket of mesquite/salt brush vegetation. This undertaking crosses an existing power line, and some modern refuse is present on the proposed access road's BOL. Soils – Berino-Cacique association: Nearly level and gently sloping, sandy soils that are deep and moderately deep to soft or inducated caliche. d. Field Methods: Transect Intervals: straight and zigzag transects, spaced not greater than 15 meters apart Crew Size: 1 Time in Field: 2 hours total Collections: no
Cultural Resource Findings: n/a
16. Management Summary (Recommendations): Archaeological clearance for Santa Fe Snyder Corporation's proposed Paloma Blanco 19 Federal Com. Well No. 1 and associated access road in Section 19, T23S, R34E, NMPM, Lea, NM is recommended as staked.
I maintain that the information provided above is correct and accurate and meets all appreciable BLM standards.
Responsible Archaeologist
Signature Date

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Figure 1. Topographic map of USGS 7.5' Series Tip Top Wells, NM (1984) showing the project area in Section 19, T23S, R34E.



