Form 3160-3 (December 1990)			SUBMIT IN TRIPLICATE		Form approved.	NA
		N.M. UIV		NM-05709		
AP	PLICATION FOR PERM	IT TO DRILL GRIEF			ALLOTTEE OR TRIBE N	AME
la TYPE OF WORK:	DRILL	DEEPEN Artesia, NA	88210-2004	N/A		
b. TYPE OF WELL:		VUasia.		7.UNIT AGRI	CEMENT NAME	. /
	well Other	SINGLE	MULTIPLE		2686	<i>·/</i>
2 NAME OF OPERAT	OR				LEASE NAME, WELL NO	•
	DEVON SFS OPERATING ,	INC. 20305		Hackberry 9.API WELL	6 Federal Com #2 NO.	
3. ADDRESS AND TEL		1500 OVC OV 73103 (404	3 235 3611	30-015-	31419	
	20 N. BROADWAY, SUITE L (Report location clearly and in acc		ents)*	0.FIELD AN	D POOL, OR WILDCAT	
	FSL & 810' FWL, Lot 6	oraunce with any blate requirem	23456	Wildcat Hackberry Morrow North		
At top proposed prod.	zone (same)		39	11.SEC.,T.,R. Section 6-1	m.,or block and sur 98-31E	VEY OR AREA
14.DISTANCE IN MILES AND	DIRECTION FROM NEAREST TOWN OR	POST OFFICE*	N N	12. COUNTY	OR PARISH	13. STATE
Approximately 42 miles	West of Hobbs, New Mexico			Eddy Cou	-	NM
15.DISTANCE FROM PROPO LOCATION TO NEAREST		16.NO. OF ACRES IN LEASE	CD ANTLON A		17.NO. OF ACRES ASS TO THIS WELL	SIGNED
PROPERTY OR LEASE L	INE, FT. 810'	304.73	. S ⁷		304.73	
(Also to nearest drig. unit line 18.DISTANCE FROM PROPO	SED LOCATION*	19.PROPOSED DEPTH	212026181		20.ROTARY OR CABI	LE TOOLS*
TO NEAREST WELL, DR OR APPLIED FOR, ON T		12,500'	-2120201-2		Rotary	
21.ELEVATIONS (Show wheth	er DF, RT, GR, etc.)			22. APP	ROX. DATE WORK WILL	START*
GL 3507'		TRAJ CONTROLLED		Noven	ıber 15, 2000	
23.		PROPOSED CASING AND CE			· · · · · · · · · · · · · · · · · · ·	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF	
17-1/2"	H-40 13-3/8"	48#	650'		approx. 571 sx (est T	
12-1/4"	J-55 8-5/8"	32#	3200'		approx. 1350 sx (est 7	<u>_</u>
7-7/8"	K-55 & N-80 5-1/2"	17#	12,500'	1	pprox. 626 sx (est T	DC @ 6000')

Devon SFS Operating, Inc. proposes to drill a Morrow well to TD 12,500'± for commercial quantities of gas. If the well is deemed noncommercial, the well bore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

PROVAL SUBJECT TO Drilling Program Surface Use and Operating Plan ENERAL REQUIREMENTS AN The undersigned accepts all applicable terms, conditions, stipulations Exhibits #1 = Blowout Prevention Plant STIPUL ATIONS Exhibit #2 = Location and Elevation Plat Exhibits #3 = Road Map and Topo Map Exhibit #4 = Wells Within 1 Mile Radius Exhibits #5 = Production Facilities Plat Exhibit #6 = Rotary Rig Layout Exhibit #7 = Casing Design H₂S Operating Plan

and restrictions concerning operations conducted on the leased land or: portions thereof, as described below Lease #: NM-05709

Legal Description: Lots 3,4,5,6,7 and SE/4 NW/4, E/2 SW/4, Sec. 6-19S-31E Effective 8/30/2000 Santa Fe-Snyder Corporation has undergone a name change to Devon SFS Operating, Inc. as evidenced by the attached certificates. Name change certificates will be forwarded in the near future. The current Santa Fe-Snyder blanket bond is Bond UTO855.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any. 24.

SIGNED This Autilous	TITLE	Tonja Rutelonis Engineering Technician	DATE	<u>9/29/00</u>	
*(This space for Federal or State office use)					
PERMIT NO		APPROVAL DATE	E		
Application approval does not warrant or certify that the applicant hold thereon.	ds legal or equitable t	title to those rights in the subject lease wl	hich would	i entitle the a	applicant to conduct operations
CONDITIONS OF APPROVAL, IF ANY:		Assistant Field Mana	aner		
APPROVED BY	TITLE	Lands And Minerals		DATE _	NOV 6 1. 2860

See Instructions On Reverse Side

APPROVED FOR I YEAR Title 18 U.S.C. Section 1001, makes 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

DRILLING PROGRAM

Attached to Form 3160-3 Devon SFS Operating, Inc. HACKBERRY 6 FEDERAL COM #2 1980' FSL & 810' FWL, Lot 6, Section 6-19S-31E Eddy County, New Mexico

1. <u>Geologic Name of Surface Formation</u>

Permian

2. Estimated Tops of Important Geologic Markers

San Andres	3,952'
Delaware	4,306'
Bone Spring	6,306'
Bone Spring	7,732'
Wolfcamp	9,904'
Strawn	10,892'
Morrow	11,390'
Morrow Clastics	11,752'
TD	±12,500'

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: Random fresh water from surface to approximately 300'
- Oil: Delaware
- Gas: Wolfcamp, Cisco-Canyon, Strawn, Atoka, Morrow

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8 5/8" casing at 3,200' and circulating cement back to surface. The oil and gas intervals will be isolated by setting 5 1/2" casing at TD and bringing cement top to approximately 6,000'.

HACKBERRY 6 FEDERAL COM #2

DRILLING PLAN

PAGE 2

4. <u>Casing Program</u>

<u>Hole Size</u>	Interval	Casing OD	Weight, ppf	Grade	Type
17 1/2"	0-650'	13 3/8"	48#	H-40	ST&C
12 1/4"	0-3200'	8 5/8"	32#	J-55	LT&C
7 7/8"	0-12500'±	5 1/2"	17#	K-55 / N-80	LT&C

Cementing Program

13 3/8" Surface Casing:	Cement to surface with 321 sx Poz:Class C with 6% Bentonite, 2% $CaCl_{2, 1}/4$ lb/sx Cello Flake + 250 sx Class C with 2% $CaCl_{2, 1}/4$ lb/sx Cello Flake.
8 5/8" Intermediate Casing:	Cement to surface – with 1031 sx Poz:Class C with 6% Bentonite, 5% NaCl ₂ , 1/4 lb/sx Cello Flake + 319 sx Class C with 1% CaCl ₂ , 1/4 lb/sx Cello Flake.
5 1/2" Production Casing:	Cement to 6000' – with 426 sx Poz:Class C CSE with 2% KCl ₂ , 0.6% FL-25, 0.6% FL-52, 0.3% CD-32, 2 lbs/sx EC-1, 5 lbs/sx LCM-1, 1/4 lb/sx Cello Flake + 200 sx Class H with 3% KCl ₂ , 1% FL-25, 0.15% R-3.

The cement volumes for the 5 1/2" casing will be revised pending the caliper measurement from the open hole logs.

5. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000 psi WP) preventer and a bag-type (Hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOP's will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be function tested.

HACKBERRY 6 FEDERAL COM #2

DRILLING PLAN

PAGE 3

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System

The well will be drilled to total depth brine with starch mud systems. Depths of systems are as follows.

<u>Depth</u>	Type	Weight (ppg)	Viscosity (1/sec)	Water Loss (cc)
0' - 650'	Fresh Water	8.4	34 – 36	No control
650' - 3200'	Brine	9.8 - 10.2	28 - 30	No control
3200' - 11,100'	Cut Brine	8.8 - 9.2	30 - 32	No control
11,100' – TD	Starch / mud	9.2 - 9.8	32 - 36	8 - 12

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment

- A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- C. Hydrogen Sulfide detection equipment (Compliance Package) will be in operation from drilling out 13 3/8" casing shoe until TD.

8. Logging, Testing and Coring Program

- A. Drill stem tests may be run on potential pay interval.
- B. The open hole electrical logging program will be as follows.

HACKBERRY 6 FEDERAL COM #2 DRILLING PLAN PAGE 4

- 1) DLL/MSFL/GR from total depth to base of intermediate casing.
- 2) CNL/LDT/GR from total depth to base of intermediate casing with CNL/GR to surface.
- C. No coring program is planned.
- D. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 180 degrees and maximum bottom hole pressure is 5500 psig. Hydrogen sulfide gas is associated with the Delaware formation in this area. A hydrogen sulfide operations plan will be implemented prior to drilling out from under the intermediate casing string (see attached "Hydrogen Sulfide Operations Plan"). No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations

Road and location preparation will not be undertaken until approval has been received from the BLM. If approved, this well will be drilled as part of a development project. The anticipated spud date for the project is in November, 2000. The drilling operation should require approximately 45 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.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3 Devon SFS Operating, Inc. HACKBERRY 6 FEDERAL COM #2 1980' FSL & 810' FWL, Lot 6, Section 6-19S-31E Eddy County, New Mexico

1. Existing Roads

- A. The well site and elevation plat for the proposed HACKBERRY 6 FEDERAL COM #2 are reflected on Exhibit #2. This well was staked by Basin Surveys in Hobbs, NM.
- B. All roads into the location are depicted in Exhibit #3. New construction from the existing lease road will be used to access the location. New construction will conform to the specifications outlined in Item #2 below.
- C. Directions to location: From Jct. Hwy 83 & Co. Road 222 (Shugart Road), go South on 222 8.5 miles to a lease road, right just before a cattleguard across 222, West & Southwest 2.4 miles to the proposed lease road ±500' Southeast of location flag.

2. Proposed Access Road

Exhibit #3 shows the existing lease road. Access to this location will require the construction of about 300' of proposed access road. All new construction will adhere to the following.

- A. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- B. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- C. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Location of Existing Wells

Exhibit #4 shows all existing wells within a one-mile radius of the proposed HACKBERRY 6 FEDERAL COM #2.

4. Location of Existing and/or Proposed Facilities

- A. In the event the well is found productive, a tank battery would be constructed at the well site.
 - 1) Exhibit #5 shows the battery facility to be utilized by the HACKBERRY 6 FEDERAL COM #2.
 - 2) The tank battery, all connections and all lines will adhere to API standards.
- B. If the well is productive, rehabilitation plans are as follows.
 - 1) The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
 - 2) Caliche from unused portions of the drilling pad will be removed. The original topsoil from the well site will be returned to the location. The drill site will then be contoured to the original natural state.

5. Location and Type of Water Supply

The HACKBERRY 6 FEDERAL COM #2 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from commercial sources and will be transported over the existing and proposed roads. No water well will be drilled on the location.

6. Source of Construction Materials

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit. All roads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit roughly 125' x 125' x 6', or smaller, in size.
- C. The reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 5-7 mil plastic to minimize loss of drilling fluids and saturation of the ground with brine water used during drilling.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks. Produced oil will be separated into steel stock tanks until sold.
- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at an approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has dried. At the point the reserve pit is found sufficiently dry, it will be backfilled and reclaimed as per BLM specifications. Only the portion of the drilling pad used by the production equipment (pumping unit and tank battery) will remain in use. If the well is deemed non-commercial only a dry hole marker will remain.

8. Ancillary Facilities

No permanent campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout

- A. The drilling pad is shown on Exhibit #6. The pad, pits and general location of the rig equipment are displayed. Top soil will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the tool pusher, drilling foreman and mud logger may be on location throughout drilling operations.
- C. The reserve pit will be lined using plastic sheeting of 5-7 mil thickness.

10. Plans for Restoration of Surface

- A. After concluding the drilling and/or completion operations, if the well is found noncommercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will be returned to the pad and contoured, as close as possible, to the original topography.
- B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.
- C. The location and road will be rehabilitated as recommended by the BLM.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.

E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drilling pad not necessary to operate the well. These unused areas of the drilling pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership

The well site is owned by the Bureau of Land Management.

Road routes have been approved by the BLM.

The surface location will be restored as directed by the BLM.

12. Other Information

- A. The project area is located on a dunal plain with loose tan sands with few exposures. The vegetation is shinoak, sandsage, mesquite, yucca, and various grasses. Wildlife consists of coyotes, rabbits, rodents, reptiles, quail, dove and occasional water fowl.
- B. There is no permanent water in the immediate area.
- C. Land use is for oil and gas production, grazing and hunting.
- D. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

13. 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.

E.L. Buttross, Jr.	Don Mayberry
Operations Engineering 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) 552-4509 (office)	(505) 748-3371 (office)
(405) 478-0754 (home)	(505) 746-4945 (home)

Certification

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: E. L. Buttrood, J.

Operations Engineering Advisor

Date: September 29, 2000

Attachment to Exhibit #1 NOTES REGARDING BLOWOUT PREVENTERS Devon SFS Operating, Inc. HACKBERRY 6 FEDERAL COM #2 1980' FSL & 810' FWL, Lot 6, Section 6-19S-31E Eddy 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.

3,000 psi Working Pressure

3 MWP

EXHIBIT # 1 ..

	STACK F	REQUIREME	NTS	
No.	ilem	Min. I.D.	Min. Nominal	
1	Flowline			
2	Fill up line			2"
3	Drilling nipple			
4	Annular preventer			
5	Two single or one dual hyd operated rams			
6a	Drilling spool with 2" min. 3" min choke line outlets			
6b	2" min. kill line and 3" mir outlets in ram. (Alternate t			
7	Valve	Gate 🗆 Piug 🗆	3-1/8*	
8	Gale valve-power operat	ed	3-1/8*	
9	Line to choke manifold			3*
10	Valves	Gate 🗆 Plug 🖸	2-1/16"	
11	Check valve		2-1/16*	
12	Casing head			
13	Vaive	Gate 🗆 Plug 🖸	1-13/16*	
14	Pressure gauge with need	die valve		
15	Kill line to rig mud pump r			2"



OPTION	AL	
16 Flanged valve	1-13/16"	

CONTRACTOR'S OPTION TO FURNISH:

- 1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
- 2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
- 3.BOP controls, to be located near drillers position.
- 4.Kelly equipped with Kelly cock.
- 5.Inside blowout prevventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
- Kelly saver-sub equipped with rubber casing protector at all times.
- 7.Plug type blowout preventer lester.
- 8.Extra set pipe rams to fit drill pipe in use on location at all times.
- 9.Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

- 1.Bradenhead or casinghead and side valves.
- 2.Wear bushing, If required.

GENERAL NOTES:

- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- 2.All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chore. Valves must be full opening and suitable for high pressure mud service.
- Controls to be of standard design and each marked, showing opening and closing position.
- 4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
- 5.All valves to be equipped with handwheels or handles ready for immediate use.
- 6.Choke lines must be sultably anchored.

- 7. Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
- All seamless steel control piping (3000 psi working pressure) to have flaxible joints to avoid stress. Hoses will be permitted.
- 10.Casinghead connections shall not be used except in case of emergency.
- 11.Do not use kill line for routine fill-up operations.

MINIMUM CHOKE MANIFOLD 3,000, 5,000 and 10,000 PSI Working Pre-

3 MWP - 5 MWP - 10 MWP



			MINI	NUM REQU	IREMENT	S				
3,000 MWP 5,000 MWP 10,000 MWP										
Na.		1,D,	NOMINAL	RATING	1.D.	NOMINAL	RATING	I.D.	NOMINAL	BATING
1	Line from drilling spool		3"	3,000		3*	5,000		3*	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate D Plug D(2)	3-1/8*		3,000	3-1/8*		5,000	3-1/8-		10,000
4	Gate C Valve Plug C(2)	1-13/16*		3,000	1-13/16"		5,000	1-13/16*		10,000
4a	Valves(1)	2-1/16*		3,000	2-1/16*		5,000	3-1/8*		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate C Plug (2)	3-1/6*		3,000	3-1/8*		5,000	3-1/8-		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2-		10,000
8	Adjustable Choke	t*		3,000	1"		5,000	21		10,000
9	Line		· 3″	3,000		3-	5,000		3"	10,000
10	Line		2"	3,000		2-	5,000		3"	10,000
11	Gale D Valves Plug D(2)	3-1/8*		3,000	3-1/8*		5,000	3-1/8=		10,000
12	Lines		3*	1,000		3-	1,000		3-	2.000
13	Lines		3-	1,000		3"	1,000	•	3*	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000	•		10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4*	1,000		4*	2,000
17	Valves Gate [] Plug [](2)	3-1/8*		3,000	3-1/8*		5,000	3-1/8*		10,000

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psl and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- 1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- 2. All flanges shall be API 58 or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- 3. All lines shall be securely anchored.
- 4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- 5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- 6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- 7. Discharge lines from chokes, choke bypass and from top of gas apparator should vent as far as practical from the well.

1

EXHIBIT#

DISTRICT I 1825 N. French Dr., Hobbs, NM 88240 DISTRICT II 811 South First, Artesia, NM 88210

DISTRICT III 1000 Rio Brazon Ed., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505 State of New Mexico

Energy, Minerals and Natural Resources Depa it

Submi

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

I AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API 1	Number			Pool Code 785		Pool Name Wildcat Hackberry Morrow North					
Property C	ode	r	Property Name						Well Nu	mber	
				HACKB	ERRY '	"6" FE	EDERAL COM		2		
OGRID No						ator Nam			Elevat		
2030	5			Devo	n SFS	Opera	ting, Inc.	····	350	7'	
	Surface Location										
UL or lot No.	Section	Township	Range	Lot Idn	Feet fro	om the	North/South line	Feet from the	East/West line	County	
LOT 6	6	19 S	31 E		19	80	SOUTH	810	WEST	EDDY	
		A	Bottom	Hole Loc	ation 1	f Diffe	rent From Sur	face			
UL or lot No.	Section	Township	Range	Lot Idn	Feet fro	om the	North/South line	Feet from the	East/West line	County	
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Ord	ier No.		l				
304.73										:	
	WABLE V	VILL BE A	SSIGNED '	TO THIS	COMPLE	TION L	JNTIL ALL INTER	ESTS HAVE BE	EN CONSOLIDA	TED	
		ORAN	NON-STAN	DARD UN	IT HAS	BEEN	APPROVED BY	THE DIVISION			
			~~~~		70.74		OT 1 - 39.63 AC.		D CEDTIFICAT		
LOT 4 - 35.	.94 AC.	LOT 3 -	39.85 AC.	LOT 2	. 39.74 /		UI 1 - 39.63 AC.		R CERTIFICAT		
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								Signature		m	
LOT 5 - 36	- <u>-</u>		~>	+		-+-		Tonia R	utelonis		
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	$\overline{}$					I		SURVEYO	OR CERTIFICAT	TION	
LOT 6 - 36	.31 AC.			<u>ا ا ا</u>		1		I hereby certify	, that the well locat	ion shown	
			$\sim$			1		11 -	as plotted from field made by me or		
3500.6	- 3512.11								withat the same is		
810'-+-		Lat - N32	2"41'15.2" 03"54'51.5"	,		i		correct to th	a best of my belie,	<i>f.</i>	
3495.0'	3506.7'			4		·		Septe	mber 27, 200	0	
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LOT 7 36.48 AC.						Ì		Professional	MELON		
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$\parallel$	$\wedge$							ROFES	SIONALLA		
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HACKBERRY "6" FED. COM. #2 Located at 1980' FSL and 810' FWL Section 6, Township 19 South, Range 31 East, N.M.P.M., Eddy County, New Mexico.

	P.O. Box 1786	W.O. Number: 0544AA - KJG #122	
<b>DASIN</b>	1120 N. West County Rd. Hobbs, New Mexico 88241	Survey Date: 09-27-2000	Devon SFS Operating, Inc.
GIITVOVS			pevon orb appending, and
focused on excellence	basinsurveys.com	Date: 09-28-2000	











# Hackberry 6 Federal Com #2

Well name:	н
Operator:	Devon SFS Operating, Inc.
String type:	Surface

Location: Eddy County, NM

Design parameters: <u>Collapse</u> Mud weight: 8.400 ppg Design is based on evacuated pipe.				Minimum design factors: <u>Collapse:</u> Design factor 1.125			Environme H2S conside Surface tem Bottom hole Temperature Minimum se	No 75 °F 80 °F 0.80 °F/100ft 650 ft	
Burst	anticipated	urfaco		<u>Burst:</u> Design fac	tor	1.00		eden fongan.	
pr Inter Calc	anticipated a ressure: nal gradient: ulated BHP ular backup:	C	371 psi 0.000 psi/ft 371 psi 8.40 ppg	<u>Tension:</u> 8 Round S 8 Round L Buttress: Premium:		1.80 (J) 1.80 (J) 1.60 (J) 1.50 (J)	Non-directio	nal string.	
				Body yield	based on air	1.60 (B)	Next set Next mu Next set Fracture Fracture	ting depth: d weight: ting BHP: mud wt: depth: pressure	3,200 ft 9.800 ppg 1,629 psi 11.000 ppg 650 ft 371 psi
Run Seq	Segment Length	Size	Nominal Weight	Grade	End Finish	True Vert Depth	Measured Depth	Drift Diameter	Est. Cost
0eq 1	(ft) 650	(in) 13.375	(lbs/ft) 48.00	H-40	ST&C	(ft) 650	(ft) 650	(in) 12.59	<b>(\$)</b> 8061
Run Seq 1	Collapse Load (psi) 284	Collapse Strength (psi) 740	Collapse Design Factor 2.61	Burst Load (psi) 371	Burst Strength (psi) 1730	Burst Design Factor 4.66	Tension Load (kips) 31.2	Tension Strength (kips) 322	Tension Design Factor 10.32 J

Prepared TRR

by: Devon Energy

Date: September 29,2000 Oklahoma City, Oklahoma

Remarks: Collapse is based on a vertical depth of 650 ft, a mud weight of 8.4 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.

Engineering responsibility for use of this design will be that of the purchaser.

Well na	ime:				Hackberr	y 6 Feder	al Com #2	2		
Operate String t		evon S ntermed		erating, Inc	•	-				
Locatio	n: E	ddy Co	ounty, N	M			<u></u>			
Design parameters:				Minimum design factors: C <u>ollapse:</u>			Environment: H2S considered?		No	
<u>Collapse</u> Mud weight: 9.000 ppg Design is based on evacuated pipe.						1.125	Surface temperature: 75 °F Bottom hole temperature: 101 °F		75 °F 101 °F 0.80 °F/100f	
				<u>Burst:</u> Design factor 1.00						
BurstMax anticipated surface pressure:1,496 psiInternal gradient:0.000 psi/ftCalculated BHP1,496 psiAnnular backup:10.20 ppg			Tension:   8 Round STC: 1.80 (J)   8 Round LTC: 1.80 (J)   Buttress: 1.60 (J)   Premium: 1.50 (J)			Non-directional string.				
			Body yield: 1.60 (B) Tension is based on air weight.			Re subsequent strings: Next setting depth: Next mud weight:		12,500 ft 8.000 ppg		
			Neutral point: 2,772 ft		Next setting BHP: Fracture mud wt: Fracture depth: Injection pressure		5,195 psi 9.000 ppg 3,200 ft 1,496 psi			
Run Seq	Segme Lengt (ft)	h :	Size (in)	Nominal Weight (Ibs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3200		8.625	32.00	J-55	ST&C	3200	3200	7.875	25533
Run Seq 1	Collap Loac (psi) 1496	i Sti	ollapse rength (psi) 2530	Collapse Design Factor 1.69	Burst Load (psi) 1496	Burst Strength (psi) 3930	Burst Design Factor 2.63	Tension Load (kips) 102.4	Tension Strength (kips) 372	Tension Design Factor 3.63 J

Prepared TRR

by: Devon Energy

Date: September 29,2000 Oklahoma City, Oklahoma

Remarks: Collapse is based on a vertical depth of 3200 ft, a mud weight of 9 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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# 国知旧其命 对

Well na Operato String ty	or: De	von SFS Op	erating, Inc.		ry 6 Fede	eral Com a	2		
Location	n: Ede	dy County, N	IM						
Collaps Mud	weight:		7.400 ppg ed pipe.	Minimum design factors: <u>Collapse:</u> Design factor 1.125			Environment:H2S considered?NoSurface temperature:75 °FBottom hole temperature:175 °FTemperature gradient:0.80 °F/100Minimum section length:650 ft		
					Burst: Design factor 1.00				
BurstMax anticipated surface pressure:pressure:1nternal gradient:0.000 psi/ftCalculated BHP4,805 psiAnnular backup:9.80 ppg			Tension: 8 Round STC: 8 Round LTC: Buttress: Premium: Body yield: Tension is based on air Neutral point: 1		1.80 (J) 1.80 (J) 1.60 (J) 1.50 (J) 1.60 (B) weight. 1,133 ft	Non-directio			
				Estimated	cost: 6	6,454 (\$)			
Run Seq	Segmen Length (ft)	t Size (in)	Nominal Weight (Ibs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
4 3 2	1000 3500 3500	5.5 5.5 5.5	17.00 17.00 15.50	N-80 N-80 K-55	Buttress LT&C LT&C	1000 4500 8000	1000 4500 8000	4.767 4.767 4.825	6026 19727 15338
1	4500	5.5	17.00	N-80	LT&C	12500	12500	4.767	25363
Run Seq	Collapse Load (psi)	e Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
4 3 2 1	384 1730 3075 4805	4792 5425 3535 6290	12.47 3.14 1.15 1.31	4805 4296 2514 732	7740 7740 4810 7740	1.61 1.80 1.91 10.57	207.2 190.2 130.7 76.5	397 348 239 348	1.92 B 1.83 J 1.83 J 4.55 J

Prepared TRR

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by: Devon Energy

Date: September 21,2000 Oklahoma City, Oklahoma

Remarks: Collapse is based on a vertical depth of 12500 ft, a mud weight of 7.4 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.

Engineering responsibility for use of this design will be that of the purchaser.

# **DEVON ENERGY CORPORATION**

# HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

#### A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

- 1. The hazards and characteristics of hydrogen sulfide (H2S).
- 2. The proper use and maintenance of the H2S safety equipment and of personal protective equipment to be utilized at the location such as H2S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
- 3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H2S bearing formation, H2S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H2S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H2S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

# B. H2S Safety Equipment And Systems

All H2S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H2S bearing formation. The safety systems to be utilized during drilling operations are as follows:

- 1. Well Control Equipment
  - (a) Double ram BOP with a properly sized closing unit and pipe raras to accommodate all pipe sizes in use.
  - (b) A choke manifold with a minimum of one remote choke.
- 2. H2S Detection And Monitoring Equipment
  - (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.
  - (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.
- 3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) five minute escape packs located at strategic points around the rig.
- (b) Two (2) thirty minute rescue packs to be located at the designated briefing areas.
- 4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

#### 5. Mud Program

The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H2S bearing formations.

6. Metallurgy

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines and valves shall be suitable for H2S service.

7. Communication

Cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

Attached is a diagram representing a typical location layout as well as the location of H2S monitors, briefing areas and wind direction indicators.



State of Delawar.

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COFY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"DEVON MERGER CO.", A DELAWARE CORPORATION,

WITH AND INTO "SANTA FE SNIDER CORPORATION" UNDER THE NAME OF "DEVON SFS OPERATING, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-NINTH DAY OF AUGUST, A.D. 2000, AT 1:30 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE TWENTY-NINTH DAY OF AUGUST, A.D. 2000, AT 11:59 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



Edward J. Freel, Secretary of State AUTHENTICATION: 0646045

0774411 8100M

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# CERTIFICATE OF MERGER MERGING DEVON MERGER CO.

### INTO

#### SANTA FE SNYDER CORPORATION

Pursuant to Section 251 of the Delaware General Corporation Law, Santa Fe Snyder Corporation, a Delaware corporation, DOES HEREBY CERTIFY:

FIRST: That the names of the constituent corporations of the merger are Devon Merger Co. and Santa Fe Snyder Corporation, both of which are Delaware corporations.

SECOND: That an Agreement and Plan of Merger, pursuant to which Devon Merger Co. will merge with and into Santa Fe Snyder Corporation, has been approved, adopted, certified, executed and acknowledged, as amended, by each of the constituent corporations in accordance with Section 251 of the Delaware General Corporation Law.

THIRD: That the name of the surviving corporation is Santa Fe Snyder Corporation, changing to Devon SFS Operating, Inc.

FOURTH: That the Restated Certificate of Incorporation of Santa Fe Snyder Corporation shall be amended and restated as set forth in the Restated Certificate of Incorporation attached hereto as Exhibit A, and such Restated Certificate of Incorporation shall be the Certificate of Incorporation of the surviving corporation.

FIFTH: That the executed Agreement and Plan of Merger, as amended, is on file at an office of the surviving corporation, which is located at 20 North Broadway, Suite 1500, Oklahoma City, Oklahoma 73102-8260.

SIXTH: That a copy of the Agreement and Plan of Merger, as amended, will be furnished by the surviving corporation, on request and without cost, to any stockholder of either constituent corporation.

SEVENTH: That the merger will be effective at 11:59 p.m. on August 29th or upon filing of this Certificate of Merger, whichever is later.

IN WITNESS WHEREOF, Santa Fe Snyder Corporation has caused this Certificate of Merger to be executed on its behalf on August 29, 2000.

SANTA FE SNYDER CORPORATION

By: Jaiof 2 Hicks

David L. Hicks Vice President, Law and General Counsel

FIFTH shall apply to, or have any effect on, the liability or alleged liability of any director of the Corporation for or with respect to any facts or omissions of such director occurring prior to such amendment or repeal. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

(5) In addition to the powers and authority hereinbefore or by statute expressly conferred upon them, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the DGCL, this Restated Certificate of Incorporation, and any By-Laws adopted by the stockholders; provided, however, that no By-Laws hereafter adopted by the stockholders shall invalidate any prior act of the directors which would have been valid if such By-Laws had not been adopted.

SIXTH. Meetings of stockholders may be held within or without the State of Delaware, as the By-Laws may provide. The books of the Corporation may be kept (subject to any provision contained in the DGCL) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the By-Laws of the Corporation.

SEVENTH. The Corporation reserves the right to amend, alter, change, or repeal any provisions herein contained, in the manner now or later prescribed by statute. All rights, powers, privileges, and discretionary authority granted or conferred upon stockholders or directors are granted subject to this reservation.

EIGHTH. This Restated Certificate of Incorporation of Devon SFS Operating, Inc. has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL.

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#### Exhibit A

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### Restated Certificate of Incorporation of Santa Fe Snyder Corporation

# FIRST. The name of the Corporation is Devon SFS Operating, Inc.

SECOND. The address, including the street, number, city and county, of the Corporation's registered office in this state is 1209 Orange Street, in the City of Wilmington, County of New Castle, 19801 and the name of the Corporation's registered agent at such address is The Corporation Trust Company.

THIRD. The nature of the business and the purpose of the Corporation shall be to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law ("DGCL").

FOURTH. The total number of shares of capital stock which the Corporation shall have authority to issue is 1,000 shares, designated as Common Stock, par value \$.10 per share.

FIFTH. The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

(1) The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

(2) The directors shall have concurrent power with the stockholders to make, alter, amend, change, add to or repeal the By-Laws of the Corporation.

(3) The number of directors of the Corporation shall be as from time to time fixed by, or in the manner provided in, the By-Laws of the Corporation. Election of directors need not be by written ballot unless the By-Laws so provide.

(4) No director of the Corporation shall be personally liable to the Corporation or any of its stockholders for monetary damages for breach of fiduciary duty by such director as a director; provided, however, that this Article FIFTH shall not eliminate or limit the liability of a director to the extent provided by applicable law (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit. No amendment to or repeal of this Article

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