Form 3160-3 (September 2001)	,		FORM APPROVE OMB No 1004-013 Expires January 31, 2	36
UNITED STATES DEPARTMENT OF THE IN			5. Lease Serial No.	2004
BUREAU OF LAND MANAG  APPLICATION FOR PERMIT TO DR			NM 100295 6. If Indian, Allottee or Tribe	Name
la Type of Work ☑ DRILL ☐ REENTER		18	7. If Unit or CA Agreement, N	ame and No.
1b Type of Well. ☐ Oil Well ☑ Gas Well ☐ Other	RECTIVED	ple Zone	Federal 21-8-13  8. Lease Name and Well No.  4	
2 Name of Operator	17 Am mm - 3 4 m3 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	<del>M  </del>	9. APL Well No. ( 7 7 1)	12/0
SG Interests I. LTD c/o NIKA Energy Operating			30-041-34	360
3a. Address	3b. Phone No. (include area code)		10 Field and Pool, or Explorato	ry
P.O. Box 2677 Durango, CO 81302  4. Location of Well (Report location clearly and in accordance with any S	(970) 259-2701		Basin Fruitland Coal 11. Sec, T, R., M, or Blk. and	Survey or Area
At surface 1996' FSL & 1982' FEL	nuie requirements.		11. 500, 1 , 10., 111, 01 Din. und	burrey of The
At proposed prod zone			<b>√</b> Section 13, 21N, 8W	
14. Distance in miles and direction from nearest town or post office*			12 County or Parish	13. State
approximately 19 miles south of Counselors, New Mexico		<b>,</b>	San Juan	NM
15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1982'	16. No of Acres in lease	17. Spacing	Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  See attached map	19 Proposed Depth	20 BLM/B	IA Bond No. on file	
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will s		23. Estimated duration	
6,681 GR	as soon as permitted		1 month	
	24. Attachments			
<ol> <li>The following, completed in accordance with the requirements of Onshore</li> <li>Well plat certified by a registered surveyor</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System L SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	4. Bond to cover th Item 20 above) 5. Operator certifice 6. Such other site s authorized office	e operations ation pecific infor	form: unless covered by an existing b mation and/or plans as may be	`
25 Signature	Name (Printed/Typed)		Date	
Title	William Schwab III		118	15007
President NIKA Energy Operating/ Agent for SG Interests I, I	LTD		<sup>ുൻ</sup> ം <sub>പ്ര</sub> യ	
Approved by (Signature)	Name (Printed/Typed)		Date	5/2/01
Title Admy AM Mussals	Office			

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 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.

\*(Instructions on reverse)

SG Interests I, LTD. proposes to drill a well to develop the Basin Fruitland Coal formation at the above described ocation in accordance with the attached drilling and surface use plans. RCVD AUG3'07

The surface is under jurisdiction of the Bureau of Land Management, Farmington Field Office.

OIL CONS. DIV.

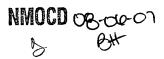
This location has been archaeologically surveyed by Aztec Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

NOTIFY AZTEC OCD 24 HRS.

DIST. 3

PRIOR TO CASING & CEMENT DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4



See corre	cted plat on	next page	<b>2.</b>		
District I 1625 W. French Dr., Hobbs, NM 88240	W Swansh Dr. Hobbs NR 90240				Form C-102 Revised June 10, 2003
District U 1301 W. Grand Avenue, Artesia, NM 88210	<del></del>	ISERVATION I	•	Submit to A	ppropriate District Office
District III			255°53 °53 <del></del> 25 <b>€ 3</b> 2936 °	2: 18	State Lease - 4 Copies
1000 Rio Brazos Rd., Aztec, NM 87410		South St. Franc		L. , O	Fee Loase - 3 Copies
District IV	Sa	inta Fe, NM 875	605 EEGENED	_	, /
1220 S. St. Francis Dr., Santa Fe, NM 87505			Di. i	L	AMENDED REPORT
	WELL LOCATION A	AND ACREAG	.,		
30 - 045 - 34300	Pool Code 71629	Basin	Fruitland Pon	Name	
Property Code 36636	F	Property Name EDERAL 21-8-1	13		'Well Number 4
'ogrid №. 20572	SGI	'Operator Name NTERESTS I, L	TD		Elevation 6681
1 000 /21				/	
UL or lot no. Section Township	Range Lot Ida	Surface Locati	On file Feet from	the Forts	West line County
J 13 21N	8W 1	996 Sot	ith 1982	East	
	Bottom Hole l	ocation If Diffe	rent From Surface		· · · · · · · · · · · · · · · · · · ·
UL or lot no. Section Township	Range Lot Ida	Feet from the No.	rth/South line Feet from	the East/	West line County
"Dedicated Acres "Joint or Infili	Consolidation Code "Order N	<u></u>	/_		
320	Jonsonantion Cone   Urger	ю.			
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NO ALLOWABLE WILL BE AS:	SIGNED TO THIS COM	PLETION UNTIL	/ ALL INTERESTS HAV	F REFN CON	JSOI IDATED OR A NON:
	STANDARD UNIT	HAS BEEN APPRO	VED BY THE DIVISI	ON	TOOLDITIDD ON IN NO.
16 N 89°B9'W		79.X#Ch.	17 C	PERATOR	CERTIFICATION
		. 🔨			nformation contained herein is
			true an	d complete to the	best of my knowledge and
			belief.		
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	]			William.	E. Mañike II
N 89°40' W		79.91 Ch.	Certificati	Number	=8466

resultant

District I

1625 N. French Dr., Hobbs, NM 88240

District.II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazes Rd., Autec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

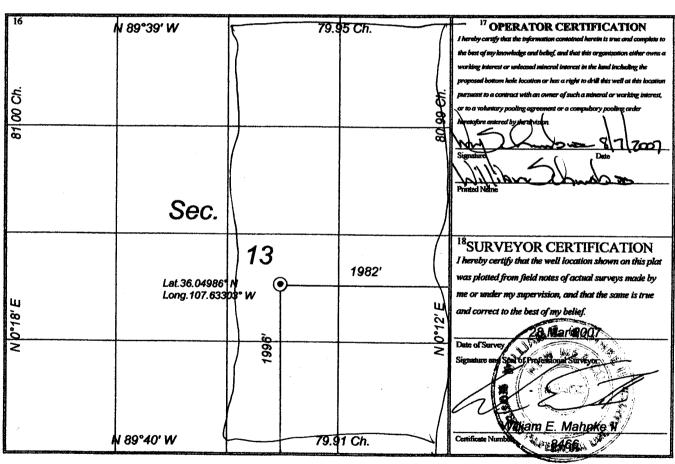
State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

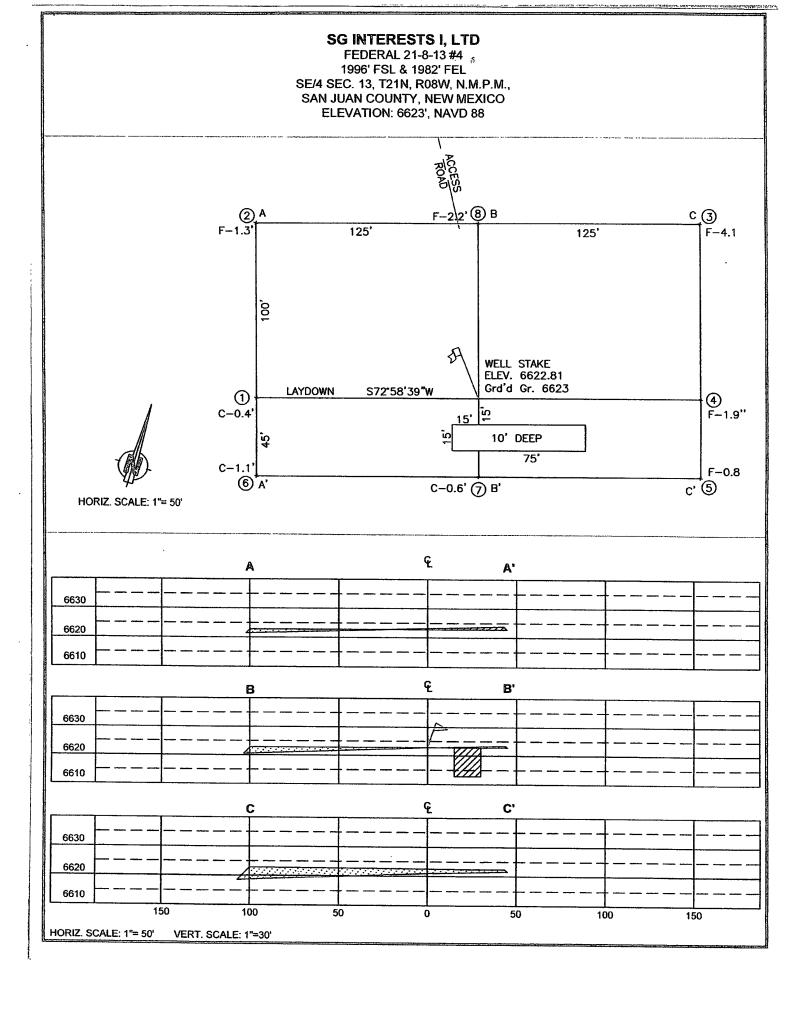
#### WELL LOCATION AND ACREAGE DEDICATION PLAT API Numb FRUITLAND COAL 71629 045 Well Number **Property Code** Property Nam FEDERAL 21-8-13 OGRID No. Operator Name Elevation 020572 SG INTERESTS I. LTD 6623 Surface Location East/West lim UL or lot no. Counts Lot ld 8W 13 21N 1996 South 1982 East San Juan Bottom Hole Location If Different From Surface UL or lot no. Lot Idu Feet from the Feet from the East/West line Joint or Infiff Consolidation Code Order No. OIL CONS. DIV 320 E DIST. 3

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.



H

Submit 3 Copies To Appropriate District	State of New Mex	riaa	Form C-103
Office District I	Energy, Minerals and Natur		May 27, 2004
1625 N. French Dr., Hobbs, NM 88240	Different and Pattern	\$	WELL API NO.
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION	· I	5. Indicate Type of Lease
<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fran		STATE FEE FED X
<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM	Santa Fe, NM 87	505	6. State Oil & Gas Lease No. Federal NMNM 100295
87505			
SUNDRY NOTICE (DO NOT USE THIS FORM FOR PROPOSA	ES AND REPORTS ON WELLS LS TO DRILL OR TO DEEPEN OR PLU	G BACK TO A	7. Lease Name or Unit Agreement Name
DIFFERENT RESERVOIR. USE "APPLICA PROPOSALS.)	TION FOR PERMIT" (FORM C-101) FO	R SUCH	Federal 21-8-13
,	as Well 🛛 Other		8. Well Number #4
2. Name of Operator SG Interes	sts I, Ltd		9. OGRID Number
3. Address of Operator			10. Pool name or Wildcat
C/O Nika Energy Operating, P	O Box 2677, Durango, CO, 8	31303	Basin Fruitland Coal
4. Well Location		<b>.</b>	
	from theSouth_ line and198	_	
Section 13 Townsh	p 21N Range 8W 11. Elevation (Show whether DR,	NMPM	County San Juan
<b>在一个人的工作,这个人的工作,</b>	6,745'	KKB, K1, GK, elc.)	
Pit or Below-grade Tank Application 🗵 or			
	•		stance from nearest surface water_>500 ft_
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume		nstruction Material Synthetic
•	propriate Box to Indicate Na	•	•
NOTICE OF INT			SEQUENT REPORT OF:
	PLUG AND ABANDON ☐ CHANGE PLANS ☐	REMEDIAL WORK COMMENCE DRIL	<u> </u>
	MULTIPLE COMPL	CASING/CEMENT	
OTHER: Pit Application	$\bowtie$	OTHER:	П
13. Describe proposed or complete	ed operations. (Clearly state all pe	ertinent details, and	give pertinent dates, including estimated date
of starting any proposed work or recompletion.	). SEE RULE 1103. For Multiple	Completions: Atta	ach wellbore diagram of proposed completion
-			
			use drilling and completion to avoid
feet wide by 10 feet deep. Pit to be			tubing set. Pit to be 75 feet long by 15
procedures	constructed, operated and oloc	ica iii accordance	with Nivicob guidennes and con
I hereby certify that the information ab grade tank has been/will be constructed or clo	ove is true and complete to the bessed according to NMOCD guidelines	st of my knowledge , a general permit 🗌 o	and belief. I further certify that any pit or below- or an (attached) alternative OCD-approved plan .
SIGNATURE	TITLE_A	gent for SG Inte	erests, Ltd. DATE 7 5 2007
Type or print name William Schwab	III E-mail address: tripp	o@nikaenergy.com	Telephone No. 970-259-2701
For State Use Only	/ _l	<b>.</b>	•
APPROVED BY:	TITLE D	eputy Oil & G	as Inspector, DATE AUG 0 6 2007
Conditions of Approval (if any):		Distric	t #3



### Fruitland Drilling Program - Federal 21-8-13#4 Page 2

#### DRILLING SKELETON:

Interval	Hole <u>Size</u>	Casing <u>Size</u>	<u>Depth</u>
Surface	12-1/4"	8-5/8"	180'
Production	7-7/8"	4-1/2"	875'

#### MUD PROGRAM:

Interval	Mud	Mud	Funnel	Water
	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Loss</u>
0 - 150'	Native	8.5 - 9.1	30 - 50	N/ <i>C</i>
150'-1000'	Native/LSND	8.5 - 9.1	30 - 50	8 - 10

CORE PROGRAM: None

ELECTRICAL LOGGING PROGRAM: Openhole logs will include a GR/Caliper and a Formation Density log from TD to the surface casing shoe.

#### CASING AND CEMENTING PROGRAM:

<u>Interval</u>	Size, Wt, Grade, Thread	<u>Depth</u>	<u>Cement</u>
Surface	8-5/8", 24#, J-55, ST& <i>C</i>	180'	125 sx Class B. 2% CaCl, ¼#sx celloflake
Production	4-1/2", 10.5#, J-55, ST&C	TD	255 sx Class B. \frac{1}{4}#sx celloflake, 3# Gilsonite

WELLHEAD:

3000# Independent Style

#### **BLOWOUT PREVENTION EQUIPMENT REQUIREMENTS:**

Description	<u>Rating</u>
Double Ram Type Preventer	2000 psi
Rotating Head	2000 psi

BOPE testing will be done by third party testers in accordance with Onshore Order No. 2. The test must be performed and recorded using a test pump, calibrated test gauges and properly calibrated strip or chart recorder. The test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. The test must be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for 5 minutes and a high pressure test requirement held for 10 minutes. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the test.

#### GEOLOGIC PROGNOSIS:

Elevations:

GL ~ 6681'

#### Formation Tops:

<u>Formation</u>	<u>Depth</u>
Ojo Alamo	125'
Kirtland	275'
Fruitland	450'
Coal Top	650'
PC	675'
Total Depth	875'

Note: TD will be 200' below the lowest coal. The company man will be on location once coals are penetrated until TD to monitor drilling breaks and to insure that 200' of rathole is drilled. When the hole is logged, if a coal zone is indicated within 150' of bottom, additional hole is to be drilled to provide 200' of rathole.

Fruitland Drilling Program - Federal 21-8-13#4
Page 4

#### MUD PROGRAM:

A fresh water native mud (using lime, benex & gel additions) will be used to drill the surface hole. The 7-7/8" hole should be drilled with native mud and a LSND mud as necessary for hole stability just before the top of the Fruitland formation is encountered.

At the top of the Fruitland formation mud weights should be sufficient to control pressures; viscosity should be in the 30 - 50 sec range with a water loss of 8 - 10 cc, as needed.

The Fruitland Coals are expected to be under-pressured to normal-pressured and may encounter lost circulation. LCM should be stored on location and used as needed in the event of lost circulation. Barite should also be on location in the event an over-pressured zone is encountered and a kick is taken.

#### CASING AND CEMENTING PROCEDURE:

Note: Notify BLM 24 hours prior to spud and testing of BOP's and cementing. 505-599-8907. Note the new (June 1, 2005) Federal (BLM) requirements for the testing and test recording of the Blow-out Preventer Equipment. A copy is attached to the approved APD.

#### Surface Casing:

- 1. Drill to a minimum of 180' to accommodate tallied 8 5/8" casing plus 3'. Casing tally to be taken on location.
- 2. Use a landing joint of 8 5/8" casing to set casing at ground level. Guide shoe on casing should be not more than 2 feet off bottom. Casing head flange to be set at ground level
- 3. Displace hole with casing volume of fresh water ahead of cement.
- 4. Pump Class B cement with 2% CaCl at 5-7 barrel per minute.
- 5. Drop top plug and displace with fresh water when preflush returns are observed at the surface. Do not over-displace.

- 6. If plug does not bump, hold pressure for a minimum of three hours.
  - a. Wait on cement a minimum of 8 hours or until surface samples are hard \*, whichever is longer <u>before</u> nippling up the BOP. Pressure test casing and BOP to 1500 psig for 30 minutes. Low pressure test BOP and Casing 250# for 10 minutes.
    - 1. \* Note: The BLM requirement is a minimum of 250 psi @ 60degrees F compressive strength <u>before</u> BOP may be nippled up.
    - 2. Notes: Use a standard 8 5/8" guide shoe, an 8 5/8" insert float, 3 centralizers and 1 stop ring. Set insert on top of first joint. Bakerlok shoe, float collar and bottom two joints of casing.

#### **Production Casing:**

- 1. Roll casing off truck with thread protectors in place.
- 2. Visually inspect, rabbit, number, and tally casing on racks. Remove thread protectors and clean threads. Use quick release protectors while running casing. Do not move or roll casing without thread protectors in place.
- 3. Change out pipe rams to accommodate 4-1/2" casing.
- 4. Bakerlok 4-1/2" float shoe to bottom of first joint of casing.
- 5. Bakerlok 4-1/2" differential float collar to top of first joint of casing. Bakerlok second joint of casing into top of float collar. Run "marker joint" 100' above top coal as per openhole logs.
- 6. Casing should be made up to proper torque (1320 ft-lb for 10.5# or 1540 ft-lb for 11.6#) using an API thread compound.
- 7. Casing should be run no faster than 2 feet per second (20 seconds per 40 foot joint). At the first indication of mud loss, the running time should be doubled to 40 seconds per joint (1 foot per second).
- 8. Break circulation at 400 feet and one joint above TD. Circulate a minimum of 15 minutes. Make sure that the hole is not flowing. Adjust mud properties as necessary. Circulate the last joint of casing to TD. Kick pumps in slowly to minimize surge pressures.
- 9. Turbolizing centralizers should be run on each of the first 10 joints and joint 12, 14, and 16. A stop-ring should be used to hold the first centralizer in place. Place the remaining centralizers on collars.

## Fruitland Drilling Program - Federal 21-8-13#4 Page 6

- 10. After casing is landed at TD, circulate hole until mud properties measured at the flowline are within the ranges given in the "Mud Program" of this drilling prognosis.
- 11. Rig up rotational cementing head and return lines. Chixson should be long enough to allow 25'-30' reciprocation.
- 12. Pump 10 barrels of fresh water. Pump 20 barrel chemical wash. Pump cement slurry. Wash lines.
- 13. Drop top plug and displace with water. Do <u>not</u> over-displace. Pipe should be rotated at 10-20 RPM or reciprocated at least 20 feet every two to three minutes throughout displacement.
- 14. Bump plug with 500 psi over final displacement pressure. Hold pressure for 5 minutes. If plug does not bump, hold initial shut down pressure on casing for 5 minutes. Then check to see that float is holding (flow back into cement pump tank).
- 15. Set slips, cut off casing and nipple down BOP. A thread protector or some other appropriate obstruction should be place on the top of the casing stub to prevent loss of material downhole.

#### Cement Slurry Designs and Notes

Slurry	Cement & Additives	Water <u>Requirements</u>	<u>Weight</u>	<u>Yield</u>
Production	Class B or G + 1/4#/sx Celloflake, and 3# gilsonite	5.2 gals/sx	15.6 ppg	1.18 cu. ft / sk

Figure slurry volume as follows: Calculate slurry using caliper volume + 50% excess. Cement volume shown in this prognosis is based on hole and casing size and surface/long string annular volumes plus percentage excess shown above.

#### NOTES:

- 1. Pump rates should be a minimum of 4 BPM through displacement.
- Slurry weights should be measured using a mud balance at least every 10 minutes during mixing.
- 3. At least two samples of the tail should be caught and monitored at room temperature for thickening time.
- 4. Run Temperature Log if cement does not circulate.

# SG Interests I, Ltd. (Agent: Nika Energy Operating, LLC) PO Box 2677 Durango, CO 81302 (970) 259-2701

Federal 21-8-13 #4 SE/4, Sec 13-21N-R8W 1996' FSL & 1982' FEL San Juan County, New Mexico

#### EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	125'
Kirtland	275'
Fruitland	450'
Coal Top	650'
PC	675'
Total Depth	875'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)

3. Minimum Specifications for Pressure Control Equipment:

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

650'

A 2000 psig double ram hydraulic BOP will be used (see attached diagram). Accessories to the BOP will meet BLM requirements for a 2000 psig system. The accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill line, kill line and line to choke manifold will be 2". BOP's will be function tested every 24 hours and will be recorded on IADC log.

Surface casing will be tested to 1500 psig for 30 minutes.

Ş,

Eight Point Drilling Program - Federal 21-8-13 #4
Page 2

Accessories to BOPE will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 2000 psig choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge.

#### 4. Casing and Cementing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csq Size</u>	Wt, Grd, Jt
12-1/4"	0-180'	8-5/8"	24#, J-55, STC
7-7/8"	0-875'	4-1/2"	10.5#, J-55, STC

Surface Casing will be cemented with 125 sx (148 cu ft) class B w/2% CaCl and 1/4#/sx of celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volumes include excess to circulate cement to surface. A guide shoe, insert float and three (3) centralizers will be used. WOC time is 8 hours. The casing will be pressure tested to 1500 psig.

Production Casing will be cemented with 255 sx (301 cu ft) class B w/2% CaCl and 1/4#/sx celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volume includes excess to circulate cement to surface. In the event cement is not circulated a temperature survey will be run to determine the actual cement top. Cementing equipment will include a guide shoe, float collar and 7 centralizers. Class G or H cement may be used depending on availability of Class B.

#### 5. Mud Program:

A native water based mud system (FW) will be used initially followed by a low-solids, non-dispersed gel system (LSND) as needed to condition the hole for logs. Adequate amounts of lost circulation and weighting material will be on location if needed as well as sorbitive agents to handle potential spills of fuel or lubricants.

<u>Depth</u>	Type	<u> Wt (ppq)</u>	<u>Vis (sec)</u>	Wtr loss
0-180'	FW	± 8.5	30-33	NC
180'-TD	FW & LSND	± 8.7-9.1	30-50	8-10 cc

Eight Point Drilling Program - Federal 21-8-13 #4 Page 3

#### 6. Testing, Coring and Logging Program:

No DSTs or cores are planned. Openhole logs will include GR, Induction, Density and Caliper Logs. The GR-Density logs will be run from TD to the top of the Fruitland formation. GR-Induction-Caliper logs will be run from TD to the bottom of the surface casing.

#### 7. Anticipated Abnormal Pressures and Temperatures:

No abnormal pressures or temperatures are expected in this well. Maximum anticipated Fruitland reservoir pressure is 300 psig with a normal temperature gradient.

#### 8. Operations:

Anticipated spud date is August 2007 or as soon as permits are received and work can be scheduled. Estimated drilling time is 4-5 days. The Fruitland will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 5-7 days and will commence as soon after completion of drilling operations and scheduling allow.

