

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

APR 24 2009

APPLICATION FOR PERMIT TO DRILL OR REENTER

Bureau of Land Management
Farmington Field Office

5 Lease Serial No
NMNM-099731
6 If Indian, Allottee or Tribe Name
If Unit or CA Agreement, Name and No
Federal 21-6-19
8 Lease Name and Well No
4

1a Type of Work ☒ DRILL ☐ REENTER

1b Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2 Name of Operator

SG Interests I, LTD c/o NIKA Energy Operating

3a Address

P.O. Box 2677 Durango, CO 81302

3b. Phone No (include area code)

(970) 259-2701

9 API Well No

3004321070

10 Field and Pool, or Exploratory

Basin Fruitland Coal

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface Unit Letter: O : 850' FSL & 1970' FEL

At proposed prod zone

11 Sec, T, R, M, or Blk and Survey or Area

0 Section 19, T21N, R6W

14 Distance in miles and direction from nearest town or post office*

approximately 22.5 miles southwest of Counselor, New Mexico

12 County or Parish

Sandoval

13 State

NM

15 Distance from proposed*

location to nearest
property or lease line, ft
(Also to nearest drig unit line, if any)

850'

16 No. of Acres in lease

1,319.06

17. Spacing Unit dedicated to this well

S/2 320.00 acres

18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft

See attached map

19 Proposed Depth

approx. 1015'

20 BLM/BIA Bond No. on file

NM1935
PB0003277

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

6,769 GR

22 Approximate date work will start*

as soon as permitted

23 Estimated duration

1 month

24. Attachments

RCVD JUL 17 '09

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

OIL CONS. DIV.

- 1 Well plat certified by a registered surveyor
- 2 A Drilling Plan
- 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
- 5 Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer

DIST. 3

25 Signature

William Schwab III

Name (Printed/Typed)

William Schwab III

Date

4/24/2009

Title

President NIKA Energy Operating/ Agent for SG Interests I, LTD

Approved by (Signature)

AFM

Name (Printed/Typed)

Office

FFO

Date

7/16/09

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

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)

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

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

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

A new access road approximately 2,342.48 feet in length would be required for this location.

This APD is also serving as an application for an on-lease gas and water pipeline ties of approximately 2,342.48 feet; both to be parallel to the proposed access road.

JUL 27 2009

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

1. NMOC

Drilling operations authorized are subject to compliance with attached "General Requirements".

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

District I
1625 N. French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, 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

RECEIVED

APR 24 2006

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-043-21070		2 Pool Code 71629		3 Property Name Farmington State Office Basin Fruitland Coal	
4 Property Code 36638		5 Property Name FEDERAL 21-6-19			6 Well Number 4
7 OGRID No 20572		8 Operator Name SG INTERESTS I, LTD.			9 Elevation 6769

223

10 Surface Location

UL or Lot No	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
O	19	21 N	6 W		850	South	1970	East	Sandoval

11 Bottom Hole Location If Different From Surface

UL or Lot No	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
12 Dedicated Acres 1/2 320.46		13 Joint or Infill		14 Consolidation Code		15 Order No			

TL5

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.

N 88°53' W

79.81 Ch.

16 (19.84 Ch.) Lot No. (Typ.) 1	(19.99 Ch.)	39.98 Ch.	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order administered pursuant to the division.</p> <p><i>[Signature]</i> 4/24/2006 Signature Date WILLIAM SCHWABITS Printed Name</p>
2			
3			
4			
<p>Sec. 19</p> <p>Lat. 36.03153° N Long. 107.50853° W</p> <p>1970'</p> <p>650'</p> <p>80.09 Ch.</p>			<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>WILLIAM E. MAHARKE II Date of Survey Signature and Seal of Professional Surveyor Certificate Number 8466</p>

N 89°07' W

Bearings from GLO Plat

**SG INTERESTS I, INC.
FRUITLAND DRILLING PROGRAM
TS**

WELL NAME: Federal 21-6-19 #4

FIELD NAME: Basin Fruitland Coal

LOCATION: SWSE Section 19, T21N, R6W
850' FSL, 1970' FEL
UL - O
Sandoval County, New Mexico

DATE: March 2009

PROPOSED TD: 1015'

DEPTH TO MINERALS: 840'

Note: Review APD Stipulations before moving on location. Review regulatory notification requirements and notify accordingly. Comply with all safety and environmental requirements.

Notify: BLM Field Office Manager (Inspection and Enforcement Section) 24 hours before SPUD, CEMENTING OR PLUGGING OPERATIONS at (505) 599-8907.

DIRECTIONS:

From Counselor Trading Post on US Hwy. 550, travel south \pm 0.1 miles, turn right on dirt road with sign "Star Lake Compressor-26 miles". This is the 0 mile point for this description. Follow dirt road:

- 4.3 miles – Turn left at "Ojo Encino School" sign,
- 11.0 miles – Transition to pavement with sign "N 474",
- 14.5 miles – Turn right off pavement through cattle guard onto dirt road,
- 19.8 miles – Turn right onto dirt road,
- 20.7 miles – Turn left onto lease road,
- 22.5 miles – Arrive at Federal 21-6-19 #3, continue \pm 2342 feet to location.

DRILLING SKELETON:

<u>Interval</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Depth</u>
Surface	12-1/4"	8-5/8"	180'
Production	7-7/8"	4-1/2"	1015'

MUD PROGRAM:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Weight</u>	<u>Funnel Viscosity</u>	<u>Water Loss</u>
0 - 180'	Native	8.5 - 9.1	30 - 50	N/C
180'-895'	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>	<u>Size, Wt, Grade, Thread</u>	<u>Depth</u>	<u>Cement</u>
Surface	8-5/8", 24#, J-55, ST&C	180'	125 sx Type 5 2% CaCl, 1/4#sx celloflake
Production	4-1/2", 10.5#, J-55, ST&C	TD	294 sx Type 5 1/4#/sx celloflake, 3# Gilsonite

WELLHEAD: 3000# Independent Style

BLOWOUT PREVENTION EQUIPMENT REQUIREMENTS:

<u>Description</u>	<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 ~ 6769', KB ~ 6774'

Formation Tops:

Formation	Depth
Ojo Alamo	315'
Kirtland	465'
Fruitland	640'
Coal Top	840'
PC	865'
Total Depth	1015'

Note: TD will be 150' below the lowest coal. The company man will be on location once coal(s) are penetrated until TD to monitor drilling breaks and to insure that 150' 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 150' of rathole.

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 185' 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 Type 5 cement with 2% CaCl at 5-7 barrel per minute.
Drop 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 **before** nipping 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 **before** BOP may be nipped 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 350 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 7 joints. A stop-ring should be used to hold the first centralizer in place. Place the remaining centralizers on collars.
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 not 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 placed on the top of the casing stub to prevent loss of material downhole.

Cement Slurry Designs and Notes

<u>Slurry</u>	<u>Cement & Additives</u>	<u>Water Requirements</u>	<u>Weight</u>	<u>Yield</u>
Surface	Type 5 + 1/4#/sx celloflake, and 2% CaCl	5.0 gals/sx	15.8 ppg	1.15 cu. ft/sx
Calculate slurry using estimated volume + 100% excess.				
Production	Type 5 + 1/4#/sx celloflake, and 3# gilsonite	5.0 gals/sx	15.8 ppg	1.15 cu. ft/sx

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.
2. 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 21-6-19 #4
SWSE (UL, O) Sec 19, T21N-R6W
850' FSL & 1970' FEL
Sandoval County, New Mexico

EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	315'
Kirtland	465'
Fruitland	640'
Coal Top	840'
PC	865'
Total Depth	1015'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)	840'
-----------------	------

3. Minimum Specifications for Pressure Control Equipment:

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

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.

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>Csg Size</u>	<u>Wt, Grd, Jt</u>
12-1/4"	0-180'	8-5/8"	24.0#, J-55, STC
7-7/8"	0-895'	4-1/2"	10.5#, J-55, STC

Surface Casing will be cemented with 125 sx (144 cu ft) Type 5 w/2% CaCl and 1/4#/sx of celloflake (Yield = 1.15 cuft/sx, Weight = 15.8 #/gal). Cement volumes include 100% 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 294 sx (347 cu ft) Type 5 w/ 3# gilsonite and 1/4#/sx celloflake (Yield = 1.15 cuft/sx, Weight = 15.8 #/gal). Cement volume includes 50% 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 B or G may be used depending on availability of Type 5.

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

6. Testing, Coring and Logging Program:

No DST's or cores are planned. Openhole logs, if run, 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.

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.

7. Operations:

Anticipated spud date is August 2009 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.

2-M SYSTEM

