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Form 3160-3 (August 2007)

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OIL CONS. DIV. FORM APPROVED OMB No 100 Approx Expires July 3 P. 20+01.

UNITED STATES DEPARTMENT OF THE INTERIOR

JAN 19 2011

Lease Serial No. NMNM-113429

BUREAU OF LAND MAN	AGEMENT Farmington Fig	ald Office			
APPLICATION FOR PERMIT TO	DRILL OR REENTERNO	lanagem	6 If Indian, Allotee Pn: Fede		Name
la Type of work		7 If Unit or CA Agre Federal 2	-	me and No.	
lb. Type of Well. Oil Well 🗸 Gas Well Other	Single Zone Multi	ple Zone	8. Lease Name and '#1	Well No.	
Name of Operator SG Interests I, Ltd.			9 API Well No. 30-043	3-a	//11
3a Address PO Box 2677, Durango, CO 81302	3b Phone No. (include area code) 970-259-2701		10. Field and Pool, or Basin Fruitl	Explorator	у
4. Location of Well (Report location clearly and in accordance with arm	v State requirements *)		11. Sec., T R M or B	lk and Sur	vey or Area
At surface 1310' FNL & 1310' FEL		İ	A, Section 28	, 21N, 06	6W
At proposed prod. zone					
14 Distance in miles and direction from nearest town or post office* Approximately 13 miles southwest of Counselors	Trading Post, New Mexico		12 County or Parish Sandoval		13 State NM
15 Distance from proposed* 1310'	16 No. of acres in lease	17 Spacing	Unit dedicated to this v	vell	
location to nearest property or lease line, ft (Also to nearest drig. unit line, if any)	1161.35		E/2 320		
18 Distance from proposed location* See attached Map	19 Proposed Depth	20 BLM/B	IA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft	1025'		P IB000327 7	NM	2559
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	rt*	23. Estimated duration		•
6905' GL	05/01/2011		1 month	1	
•	24. Attachments				
 Well plat certified by a registered surveyor. A Dillling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office) 	Item 20 above). Sands, the 5. Operator certific	ation	s unless covered by an		
25. Signiture	Name (Printed/Typed) William So	chwab III		Date 01/19/2	2011
Title Agent for SG Interests					
Approved by (Signatury) Manche 105CF	Name (Printed/Typed)			Date /2	120/1
Title AFM	Office FEO				
Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached.	legal or equitable title to those righ	ts in the subje	ect lease which would e	ntitle the a	pplicant to
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri States any false, fictitious or fraudulent statements or representations as to		villfully to ma	ke to any department o	r agency o	of the United
(Continued on page 2) NOTIFY AZIE	U UUU 24 HK	ن	*(Inst	ructions	on page 2)
PRIOR TO CAS	SING & CEMEN	17	•		10,
BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATION	S APPRO	OVED BY TH OP SYSTEM	4 MUST BE SUBMITI E NMOCD FOR: A PI I, BELOW GRADE TA RNATIVE METHOD, I	T, CLOSE NK, OR	ED

This action is subject to technical and procedural review pursuant to 43 CFR 3165 3 and appeal pursuant to 49 CFR 3165 4

ON FEDERAL AND INDIAN LANDS

Ca JAN 1 3 2012

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

TO NMOCD 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

Revised October 12, 2005 Submit to Appropriate District Office

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. JAN 1 9 2011

State Lease - 4 Copies

Santa Fe, NM 87505

Fee Lease - 3 Copies

Form C-102

☐ AMENDED REPORT

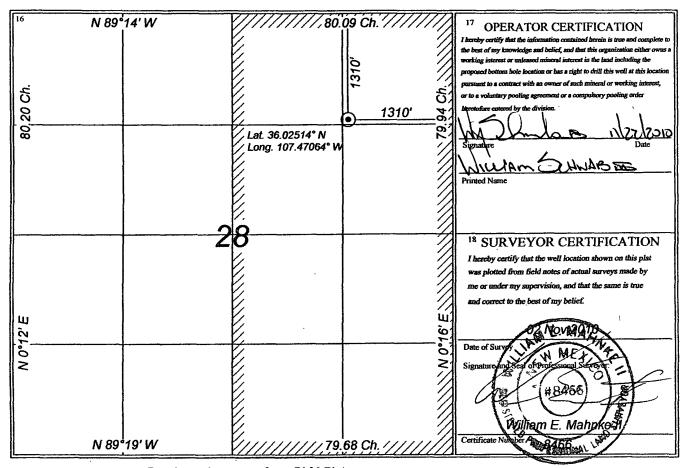
Santa Fe, NM 87303 Farmington Field Office WELL LOCATION AND ACREAGE DEDICATION PLATGEMENT

30-043-246	7221111	² Pool Code 71629	³ Pool Name Basin Fruitland Coal	
4 Property Code 35512		⁵ Property Name FEDERAL 21-6-28		6 Well Number 1
⁷ OGRID №. 20572		* Operator Name SG INTERESTS I, LTD.		9 Elevation 6905

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
A	28	21 N	6 W		1310	North	1310	East	Sandoval
			11 Bo	ottom Ho	le 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
	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u>L,</u>	<u> </u>	
12 Dedicated Acres	13 Joint o	r Infill 14	Consolidation	Code 15 C	order No.				
320 (E/2)	1			1					

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.



Bearings shown are from BLM Plat

SG INTERESTS I, INC. FRUITLAND DRILLING PROGRAM TS

WELL NAME:

Federal 21-6-28 #1

FIELD NAME:

Basin Fruitland Coal

LOCATION:

NENE/4 Section 28, T21N, R6W

1310' FNL, 1310' FEL

UL - A

Lat 36.02514° N, Long -107.47064° W

Sandoval County, New Mexico

DATE:

January 2011

PROPOSED TD:

1025'

DEPTH TO MINERALS:

850'

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.

Notify: NMOCD Field Office Manager (Inspection and Enforcement Section) 24 hours before SPUD, CEMENTING OR PLUGGING OPERATIONS at (505) 334-6178.

A Copy: Of the Approved APD and Drilling Procedure will be on location and in the Doghouse at all times during the drilling and cementing operations.

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 (Rd #46):

- 9.0 miles Turn left onto a main road +300' past a pipeline corridor,
- 13.0 miles Turn left at water well,
- 14.0 miles At top of hill take right fork.
- 15.4 miles Turn left, continue easterly through Federal 21-6-29 #4 well pad, uphill through Federal 21-6-28 #3 well pad,
- 17.0 miles Arrive location,

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"	1025'

MUD PROGRAM:

<u>Interval</u>	Mud	Mud	Funnel	Water
	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Loss</u>
0 - 180'	Native	8.5 - 9.1	30 - 50	N/C
180'-1025'	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:

Interval	Size, Wt, Grade, Thread	<u>Depth</u>	Cement
Surface	8-5/8", 24#, J-55, ST&C	180'	128 sx Type 5 2% CaCl, ¼#sx celloflake
Production	4-1/2", 10.5#, J-55, ST&C	TD	297 sx Type 5 1/4#/sx celloflake, 3# Gilsonite

WELLHEAD:

WHI 3000# 8-5/8" W92 Casing Head, 7-1/16" x 4-1/2" W2F Flanged Tubing Head, 7-1/16" x 2-3/8" Mandrel, 7-1/16" x 2-3/8" Threaded Hanger Flange.

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.

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GEOLOGIC PROGNOSIS:

Elevations: GL ~ 6905', KB ~ 6910'

Formation Tops:

<u>Formation</u>	Depth
Ojo Alamo	345'
Kirtland	475'
Fruitland	650'
Coal Top	850'
PC .	875'
Total Depth	1025'

Note: TD will be 150' below the lowest coal. The company man will be on location once the 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:

Fresh water will be used to drill the surface hole. The 7-7/8" hole should be drilled with fresh water / polymer 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:

FOCD

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.
- Pump Type 5 cement with 2% CaCl at 5-7 barrel per minute.
 displace with fresh water when preflush returns are observed at the surface. Do not over-displace.
- 6. Hold pressure for a minimum of three hours. SDFN. BOPE Test next day.
 - a. Wait on cement a minimum of 8 hours or until surface samples are hard *, whichever is longer **before** 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.

500

- 1. **Note**: The BLM requirement is a minimum of 250 psi @ 60degrees F compressive strength **before** BOP may be nippled up.
- 2. **Notes:** Use a standard 8 5/8" guide shoe, 3 centralizers and 1 stop ring. Set insert on top of first joint. Bakerlok shoe, 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 joint of casing. 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 <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.



Fruitland Drilling Program – Federal 21-6-28 #1 Page 6

Cement Slurry Designs and Notes

Slurry	Cement & Additives	Water <u>Requirements</u>	Weight	<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 slu	ırry 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.

NOTIFICATION SCHEDULE

Purpose or Reason

Regulatory	Phone Number	Comments
BLM	505-599-8907	Notify 24 hours before spud, testing BOP's, running casing, or cementing.
BLM	505-899-8900	Changes or questions regarding approved plans or drilling ops.
BLM	505-327-2186 505-326-0253 505-334-1266	Emergency program changes after normal business hours. Wayne Townsend Steve Mason Jim Lovato
NMOCD	505-334-6178	Notify 24hrs before cementing. Monica Kuehling RRANden Pow (//
<u>Drilling Issues</u>		
Tripp Schwab tripp@nikaenergy.com	970-259-2701 970-769-3589 970-769-3589 303-422-3112 303-913-9287	Office Mobile Home (Durango) Home (Denver) Mobile (LeAnne)

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

Federal 21-6-28 #1 NENE (UL, A) Sec 28, 21N-R6W 1310' FNL & 1310' FEL Sandoval County, New Mexico

EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	345'
Kirtland	475'
Fruitland	650'
Coal Top	850'
PC	875'
Total Depth	1025'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)

850'

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.

3

4. Casing and Cementing Program:

Hole Size	<u>Interval</u>	Csg Size	Wt, Grd, Jt
12-1/4"	0-180'	8-5/8"	24.0#, J-55, STC
7-7/8"	0-1025'	4-1/2"	10.5#, J-55, STC

Surface Casing will be cemented with 128 sx (147 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 297 sx (342 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>	Wt (ppg)	<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

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.

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 May 2011 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.

