Form 3160-3 (September 2001) A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

RCVD JAN 12'09 OMB NO. 1004-0136 Expires: January 31,2004

UNITED STATES

DEPARTMENT OF THE INTERIOR

11 -9 PM 3: 30

Lease Serial No.

BUREAU OF LAND MAN		NOG-0205-100/	
APPLICATION FOR PERMIT TO D	DRILL OR REENTER :	6 If Indian, Allottee or Tribe Name	
		NAVAJO ALLOTMENT	
	الم ألمه الله على الله	7. If Unit of CA Agreement, Name and No.	
la. Type of Work X DRILL RE	EENTER		
		8. Lease Name and Well No.	
1b Type of Well Oil Well X Gas Well Other	Single Zone Multiple Zo	1	
2. Name of Operator		9 API Well No. 30-043-21848	
SG Interest I, LTD		2	
3a Address 3b.	. Phone No. (include area code)	10. Field and Pool, or Exploratory	_
P.O. Box 2677, Durango, CO 81302	(970) 259-2701	Basin Fruitland Coal	
4. Location of well (Report location clearly and In accordance with	h any State requirements.*)	11. Sec, T., R., M., or Blk. And Survey or Are	a
At surface		J	
1728' FSL & 1712' FWL		K, Section 27, T-21-N, R-6-W, NMPN	1,
At proposed prod. zone		1	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TO	OWN OR POST OFFICE*	12. County or Parish 13. State	
Approximately 17.0 miles southwest of Counselor Trading		Sandoval NM 7. Spacing Unit dedicated to this well	
15 Distance from proposed* location to nearest	16. No. of Acres in lease	7. Spacing Onti dedicated to this well	
property or lease line, ft.		<b>50</b>	
(Also to nearest drlg unit line, if any) 1712'	160 Acres	S1/2, 320.16 Acres	
18. Distance from proposed location*	1	0. BLM/ BIA Bond No. on file	***************************************
to nearest well, drilling, completed,	1150'		
applied for, on this lease, ft. See Attached ma		BIA Bond Number-LPM 8842198	
21 Elevations (Show whether DF. RT, GR, etc.)	22. Aproximate date work will s	tart* 23. Estimated Duration	
6936 GR	as soon as permitte	ed 1 month	
24. Attachments			
The following, completed in accordance with the requirements of Ons	hore Oil and Gas Order No. 1 shall be	attached to this form:	
1 Well plat certified by a registered surveyor.	4 Bond to cover the on	erations unless covered by existing bond on file(see	
A Drilling Plan.	item 20 above).	oranions amoust so visca by orienting bond on indicate	
3. A Surface Use Plan ( if the location is on National Forest System l	Lands, the 5. Operator certification	ı.	
SUPO shall be filed with the appropriate Forest Service Office).	6. Such other site speci-	fic information and/ or plans as may be required by the	a
	authorized officer.		
25. Signature Nam	ne (Printed/Typed)	Date	=
Man 451	Juan E. Betor		
Title	(		
Agent, Ellis & Associates, Inc.		1 /	

Approved By (Sig

Application approval does not warrant or certify that the applicant holds legal or equitable ti

Name (Printed/ Typed)

Date

Title

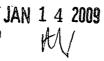
Office

operations thereon. Conditions of approval, if any, are attached

PRIOR TO CASING & CEMEN

itle 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 Unite States an; false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\* (Instructions on reverse)





#### 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

12 Dedicated Acres -320

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

13 Joint or Infill

14 Consolidation Code

#### 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

R(VD JAN 14'09

UIL CUMS. DIV.

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#### WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code 71629 Basin Fruitland Coal 5 Property Name 6 Well Number Property Code NAVAJO 21-6-27 3 37552 <sup>8</sup> Operator Name 9 Elevation 7 OGRID No. SG INTERESTS I, LTD. 6936 20572 <sup>10</sup> Surface Location Feet from the North/South Line UL or Lot No Section Township Range Lot Idn. Feet from the East/West Line County Κ 27 21 N 6 W 1728 South 1712 West Sandoval 11 Bottom Hole Location If Different From Surface Lot Idn North/South Line UL or Lot No. Section Township Feet from the East/West Lme County

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.

15 Order No

	<del></del>	<del>7</del>		
79 94 Ch.	505' W	80.	09 Ch. 'V) 99 62	17 OPERATOR CERTIFICATION  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 warking interest or unlessed mineral interest in the land including the proposed bottom hade 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 hadrofore entered by the division.  Date  Printed Name
1712' 2 2 N 89	Lat. 36.01883° N Long. 107.46044° W	79	93 S6 N 0°25′E	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.  Date of survey  William E Mahnke II  Certificate Number 8466

Bearings from GLO Plat

#### New Mexico Oil Conservation Division C-102 Instructions

#### IF THIS IS AN AMENDED REPORT, CHECK THE BOX LABELED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico, Principal Meridian. If the land is not surveyed contact the appropriate OCD district office. Independent subdivision surveys will not be acceptable.

- The OCD assigned API number for this well.
- 2. The pool code for this (proposed) completion.
- 3. The pool name for this (proposed) completion.
- The property code for this (proposed) completion.
- The property name (well name) for this (proposed) completion.
- 6. The well number for this (proposed) completion.
- 7. Operator's OGRID number.
- 8. The operator's name.
- 9. The ground level elevation of this well.
- 10. The surveyed surface location of this well measured from the section lines. NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD unit letter.
- 11. Proposed bottom hole location. If this is a horizontal hole indicate the location of the end of the hole.
- 12. The calculated acreage dedicated to this completion to the nearest hundredth of an acre.
- 13. Put a Y if more than one completion will be sharing this same acreage or N if this is the only completion on this acreage.
- 14. 'If more than one lease of different ownership has been dedicated to the well show the consolidation code from the following table:
  - C Communitization
  - U Unitization
  - F Forced pooling
  - O Other
  - P Consolidation pending

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!

- 15. Write in the OCD order(s) approving a non-standard location, non-standard spacing, or directional or horizontal drilling.
- 16. This grid represents a standard section. You may superimpose a non-standard section over this grid. Outline the dedicated acreage and the separate leases within that dedicated acreage. Show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. (Note: A legal location is determined from the perpendicular distance to the edge of the tract.) If this is a high angle or horizontal hole, show that portion of the well bore that is open within this pool.

Show all lots, lot numbers, and their respective acreage.

If more than one lease has been dedicated to this completion, outline each one and identify the ownership as to both working interest and royalty.

- 17. The signature, printed name, e-mail address, and title of the person authorized to make this report, and the date this document was signed.
- 18. The registered surveyors certification. This section does not have to be completed if this form has been previously accepted by the OCD and is being filed for a change of pool or dedicated acreage.

## NIKA ENERGY OPERATING, LLC SG INTERESTS I, LTD.

WELL NAME:

Navajo 21-6-27#3

FIELD NAME:

Basin Fruitland Coal

LOCATION:

Sec 27, T21N, R6W

UL K

Sandoval County, New Mexico

PROPOSED TD:

1150'

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"	1150'

#### MUD PROGRAM:

Interval	Mud	Mud	Funnel	Water
	Type	<u>Weight</u>	<u>Viscosity</u>	<u>Loss</u>
0 - 180'	Native	8.5 - 9.1	30 - 50	N/ <i>C</i>
180'-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>	Cement
Surface	8-5/8", 24#, J-55, ST&C	180'	125 sx Class B. 2% CaCl, ¼#sx celloflake
Production	4-1/2", 10.5#, J-55, ST&C	TD	388 sx Class B. $\frac{1}{4}$ #sx celloflake, 3# Gilsonite

WELLHEAD:

3000# Independent Style

#### BLOWOUT PREVENTION EQUIPMENT REQUIREMENTS:

Description	Rating
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 ~ 6936'

#### Formation Tops:

Formation	<u>Depth</u>
Ojo Alamo	425'
Kirtland	575′
Fruitland	675'
Coal Top	950'
PC	975'
Total Depth	1150′

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.

#### 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: CiRc Cont To Suffice

- 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 500 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.
- 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).

#### Production Casing cont.

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.

Circ Cmt 70 Surface

#### 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

Navajo 21-6-27 #3

NW Sec 6-21N-R6W

1728' FSL & 1712' FWL

Sandoval County, New Mexico

#### EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	425'
Kirtland	575'
Fruitland	675'
Coal Top	950'
PC	975'
Total Depth	1150'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas) 950'

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.

Eight Point Drilling Program - Navajo 21-6-27 #3 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>Csg Size</u>	Wt, Grd, Jt
12-1/4"	0-180'	8-5/8"	<b>24</b> <del>20#</del> , J-55, STC
7-7/8"	0-1150'	4-1/2"	10.5#, J-55, STC
	•	tt <sub>3</sub>	e

Surface Casing will be cemented with 125  $\frac{1}{50}$  (106  $\frac{1}{50}$ ) 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.

ft<sup>3</sup> sxs

Production Casing will be cemented with 388  $\frac{4}{32}$  (329  $\frac{4}{64}$ ) 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	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

Eight Point Drilling Program - Navajo 21-6-27 #3 Page 3

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

No DST's 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 January 2008 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.

