Form 3160-3
(August 2007)

RECEIVED
OCT 26 2012
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0137
Expires 31, 20

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NM 109382

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. Cisco 20-6-12 #4

2. Name of Operator SG Interests I, LTD. (Agent: Nika Energy Operating, LLC)

9. API Well No. 30-031- 21114

3a. Address P.O. Box 2677 Durango, Colorado 81302

3b. Phone No. (include area code) 970-259-2701

10. Field and Pool, or Exploratory Franciscan Lakes MV

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface Unit Ltr P (SESE) 1205' FSL & 330' FEL
At proposed prod. zone Same As Above

11. Sec., T. R. M. or Blk. and Survey or Area Section 12, T20N, R6W

14. Distance in miles and direction from nearest town or post office* 65.6 miles from Counselor, NM

12. County or Parish McKinley

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'

16. No. of acres in lease 960

17. Spacing Unit dedicated to this well 40 acres

RCVD APR 25 '13
OIL CONS. DIV.
DIST. 3

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. None

19. Proposed Depth 2900

20. BLM/BIA Bond No. on file NM 1935

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6759' GL

22. Approximate date work will start* 11/25/2012

23. Estimated duration 10 days

24. Attachments

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

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 must 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 BLM.

25. Signature — Name (Printed/Typed) Mike L. Mankin — Date 10/25/2012

Title

Approved by (Signature) — Name (Printed/Typed) — Date 4/23/13

Title AFM — Office FFO

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.

(Continued on page 2)

*(Instructions on page 2)

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

NMOCD

HOLD C104 FOR NSL

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.

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

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

MAY 02 2013 ca

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

District I
1625 N. French Dr, Hobbs, NM 88240
Phone: (575)393-6161 Fax: (575)393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
OCT 26 2012
Farmington Field Office
Bureau of Land Management

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-031-21114	26710	Franciscan Lakes Mesa Verde

4 Property Code	5 Property Name	6 Well Number
39860	CISCO 20-6-12	4

7 OGRID No.	8 Operator Name	9 Elevation
20572	SG INTERESTS I, LTD.	6759

10 Surface Location

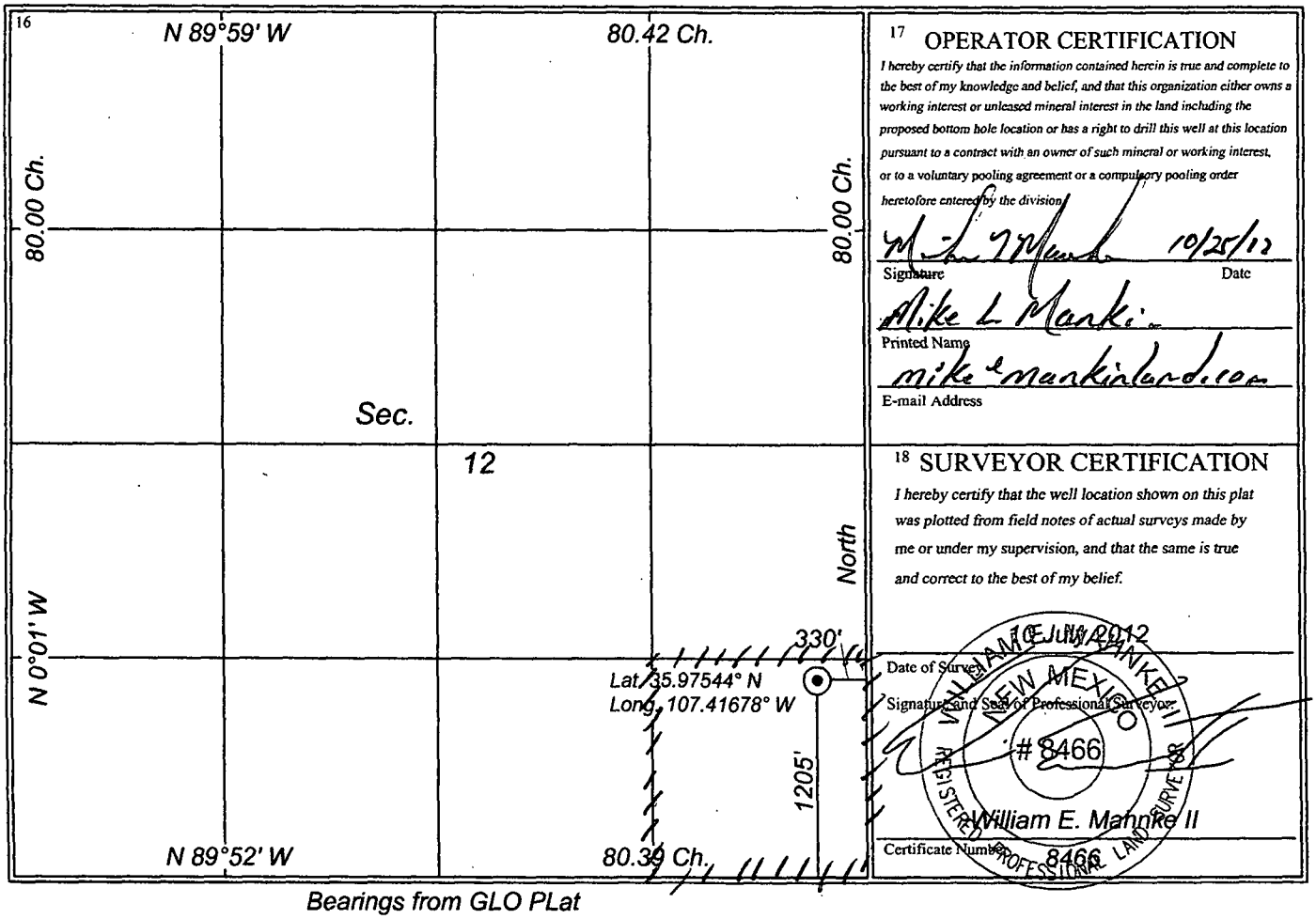
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South Line	Feet from the	East/West Line	County
P	12	20 N	6 W		1205	South	330	East	McKinley

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
40			

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 from GLO PLat

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 working interest or unleased 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 heretofore entered by the division.

Signature — Date: 10/25/12

Printed Name: Mike L Mankin

E-mail Address: mike@mankinland.com

18 SURVEYOR CERTIFICATION

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: 10 JULY 2012

Signature and Seal of Professional Surveyor:

WILLIAM E. MANNKE II
NEW MEXICO
8466
REGISTERED PROFESSIONAL LAND SURVEYOR

William E. Mannke II

Certificate Number: 8466

TOP PACKING RING

RUBBER RING

BOTTOM PACKING RING

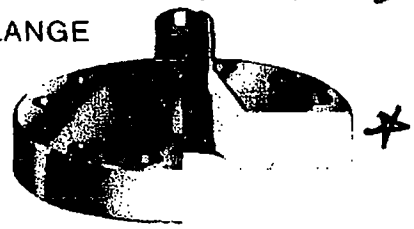
HINGED SLIPS

NUTS

M 11/16" x 2 3/8"

SLIP FLANGE

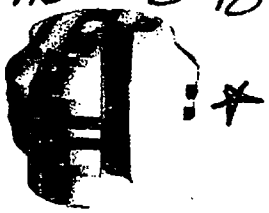
STRIPPER RUBBER



THREADED HANGER FLANGE

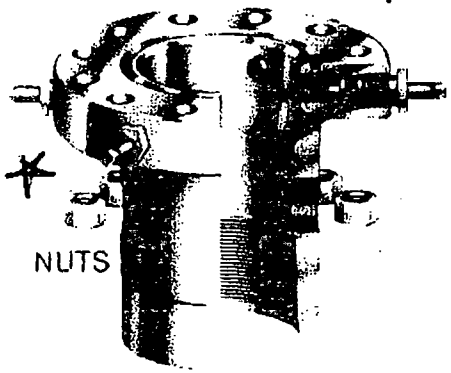
STUDS

M 11/16" x 2 3/8"



A.P.I. RING R-45

MANDREL



HOLD DOWN SCREW ASSY.

2" L.P. w/ Full Port Ball Valves

NUTS

BODY

W2F–1-2000# W2F–1-3000#	Body	101 150
W2F–2-2000# W2F–2-3000#	Threaded Hanger Flange	89 111
W2–3S	Stripper Rubber	13.5
W2F–4-2000# W2F–4-3000#	Studs & Nuts	2 3
W2F–5	R45 API Ring	1½
W2F–6	Holddown Screw Assy. (4)	2
W2F–71-2000# W2F–71-3000#	Slip Flange	94 115
W2F–72	Packing Gland w/cap Screws	5
W2F–74	Top Packing Ring	5
W2F–75	Rubber Ring	1
W2F–76	Bottom Packing Ring	½
WR–7	Hinged Slips	13

SPECIFICATIONS

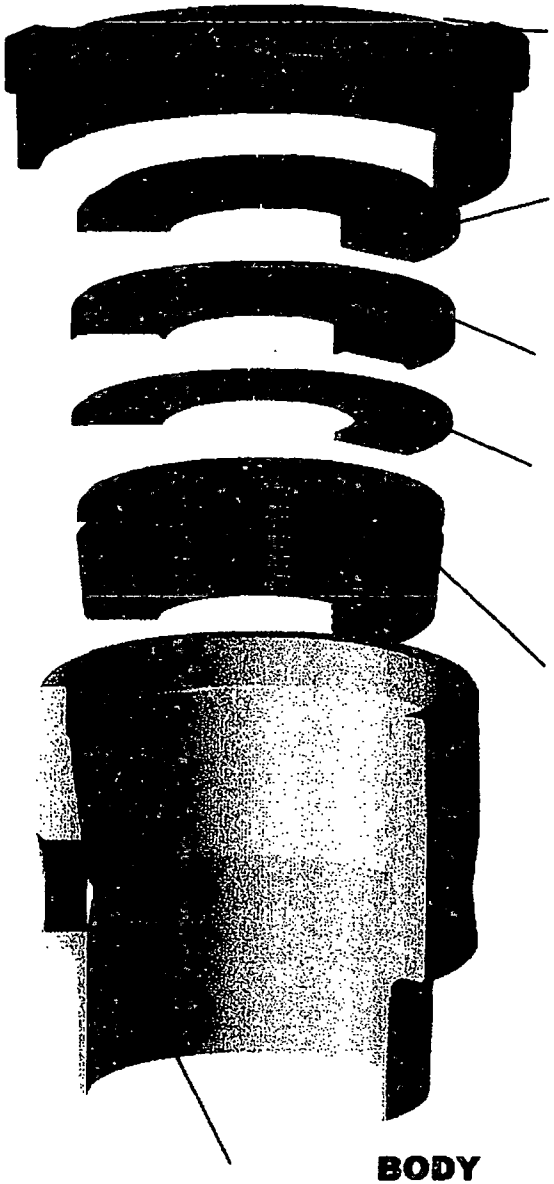
Bottom Thread Size	Tubing Size	Bore	Ht.
4½" 8rnd 5½" 8rnd 7" 8rnd	2" thru 3"	4.090" 5.012" 6.437"	18½"

Maximum Slip Load, 85,000 lbs.

MANDREL

Part No.	Tubing Size	Wt.
W2–3	2" thru 4"	42.5

* 7 1/16" 3M x 4 1/2" 8RD Female Tubing Head



MODEL #	PART NAME	Wt 7"	Wt 8 5/8"	Wt 9 5/8"	Wt 10 3/4"	W. 13 3/8"
W92-1	Top Nut	20	25	32	26	70
W92-2 W92-3 W92-4	Top Packing Ring Rubber Ring Bottom Packing Ring	5 1 1	12 3 1	15 2 1	20 2 1	40 3 13
W92-5	Hinged Slips	19	35	45	70	85
W92-6	Body	64	70	93	105	190
W92-99	Head Complete	110	146	188	224	401
W92-8	Slip Bowl	–	34	–	–	–

Bottom Thread Size	Casing Size	Bore	Ht.	Top Thread Size
7" 8rnd	4 1/2-5 1/2"	6.437"	13 5/8"	8 5/8" 8rnd
7 5/8" 8rnd		6.938"		
* 8 5/8" 8rnd	4 1/2-7"	8"		10 3/4" 8rnd
9 5/8" 8rnd	4 1/2-7 5/8"	9"		11 3/4" 8rnd
10 3/4" 8rnd	4 1/2"-8 5/8"	10.047"		12 3/4" 8rnd
11 3/4" 8rnd	4 1/2"-9 5/8"	11.048"	15 7/8"	16" 8rnd
12 3/4" 8rnd		12.047"		
13 3/8" 8rnd		12.75		

Maximum slip load 170,000 lbs for the following casing sizes of K-55 Casing:

4 1/2" 10.5 lbs	5 1/2" 15.5 lbs.	7" 26 lbs.	8 5/8" 36 lbs.
9 5/8" 40 lbs.	10 3/4" 45.5 lbs.	11 3/4" 47 lbs.	13 3/8" 61 lbs.

Greater slip loads require higher casing grades or weights. Contact **Wellhead Inc** if higher hanging loads are required.

Catalog 1285-06

Part No.	Part Name	Wt. 7"	Wt. 8⅝"	Wt. 9⅝"	Wt. 10¾"	Wt. 13⅜"
W92–1	Top Nut	20	25	32	26	70
W92–2	Top Packing Ring	5	12	15	20	40
W92–3	Rubber Ring	1	3	2	2	3
W92–4	Bottom Packing Ring	1	1	1	1	13
W92–5	Hinged Slips	19	50	60	77	115
W92–6	Body	64	70	93	105	190
W92	Head Complete	110	161	203	231	431
W92–8	* Slip Bowl	—	34	—	—	—

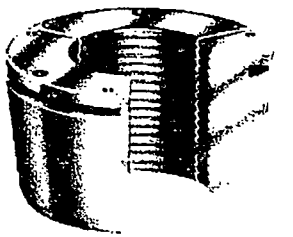
TOP PACKING RING

RUBBER RING

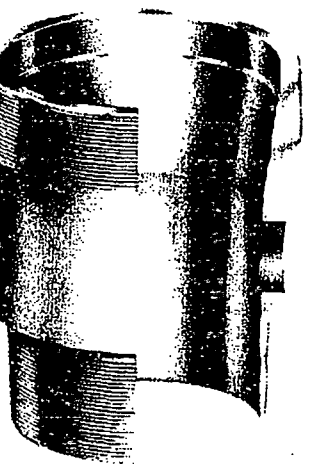
BOTTOM PACKING RING

SPECIFICATIONS

Bottom Thread Size	Casing Size	Bore	Ht.	Top Thread Size
7" 8rnd	4½ - 5½"	6.437"	13⅝"	8⅝" 8rnd
7⅝" 8rnd		6.968"		
8⅝" 8rnd	4½ - 7"	8"		10¾" 8rnd
9⅝" 8rnd	4½ - 7⅝"	9"		11¾" 8rnd
10¾" 8rnd	4½ - 8⅝"	10.047"		12¾" 8rnd
11¾" 8rnd	4½ - 9⅝"	11.048"	15⅞"	16" 8rnd
12¾ 8rnd		12.047"		
13⅜" 8rnd		12.75"		



HINGED SLIPS



BODY

Maximum Slip Load, 176,000 lbs.

* Note: Use W92–8 Slip Bowl with WR-7 Slip.

2" L.P.

W/ Nipple, Bull Plug + Ball Valve.

Csg Hd. 8 5/8" x 4 1/2" Slip + Seal 3000#WP

SG INTERESTS I, INC.
MESA VERDE DRILLING PROGRAM
TS

WELL NAME: Cisco 20-6-12 #4

FIELD NAME: Franciscan Lakes Mesa Verde

LOCATION: SESE/4 Section 12, T20N, R6W
1205' FSL, 330' FEL
UL - P
Lat 35.97544° N, Lat 107.41678° W
McKinley County, New Mexico

DATE: October 2012

PROPOSED TD: 2900'

DEPTH TO MINERALS: 2750'

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.

Note: This will be a closed loop drilling mud system. All precautions will be taken to ensure no fluids come in contact with the ground. Install a 6'diameter x 5' tall culvert cellar for spud.

DIRECTIONS:

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

4.30 miles- Turn left at "Ojo Encino School" sign,
11.00 miles- Transition to pavement with sign "N 474",
15.40 miles- Turn right off pavement through cattle guard onto dirt road,
16.60 miles- Turn left immediately after cattle guard and follow lease road east and then south,
18.65 miles- Turn right (west) and follow flagged access road ±534' to staked location.

DRILLING SKELETON:

Interval	Hole Size	Casing Size	Depth
Surface	12-1/4"	8-5/8"	650'
Production	7-7/8"	4-1/2"	2900'

MUD PROGRAM:

Interval	Mud Type	Mud Weight	Funnel Viscosity	Water Loss
0 - 650'	Native	8.5 - 9.1	30 - 50	N/C
650'-2900'	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	Depth	Cement
Surface	8-5/8", 24#, J-55, ST&C	650'	350 sx Type 5 ¼#sx celloflake, 3# gilsonite
Production	4-1/2", 10.5#, J-55, ST&C	2900'	863 sx Type 5 ¼#sx celloflake, 3# Gilsonite

WELLHEAD:

Wellhead Inc.
8-5/8" x 4-1/2" W92 Casing Head – 3000# WP
7-1/16" x 4-1/2" 8 Rd W2F Tubing head -3000# WP
7-1/16" Tubing Mandrel
7-1/16" x 2-3/8" Threaded Hanger Flange
2" NPT Casing Valves

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 ~ 6759'

Formation Tops:

Formation	Depth
Kirtland	85'
Fruitland	290'
Coal Top	480'
PC	520'
Cliffhouse	1700'
Point Lookout	2750'
Total Depth	2900'

Note: TD will be 150' below the Point Lookout. The company man will be on location once the MV is penetrated until TD to monitor drilling breaks and to insure that 150' of rathole is drilled. When the hole is logged, if an oil zone is indicated within 150' of bottom, additional hole is to be drilled to provide 150' of rathole.

MUD PROGRAM:

A produced water (Fruitland) 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 Mesa Verde 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 Mesa Verde Sands 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.

Note: In pit tank used to flush cement, pour several large bags of sugar to keep cement from setting.

Surface Casing:

1. Drill to a minimum of 650' 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 3# Gilsonite 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** 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 **before** BOP may be nippled up.
2. **Note:** 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 Cliffhouse 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 1500 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 25 joints, and every other joint for the next 23 joints (38 centralizers). 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. NU Casing Head. Install tubing head, flange and 8rd ball valve with tapped bull plug and ½ inch needle valve. Do not leave tubing hanger on location as it will be stolen.

Cement Slurry Designs and Notes

Slurry	Cement & Additives	Water Requirements	Weight	Yield
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 + 50% 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 cement 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

Cisco 20-6-12 #4
SESE/4 (UL-P) Sec 12, 20N-R6W
1205' FSL & 330' FEL
McKinley County, New Mexico

EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Kirtland	85'
Fruitland	290'
Coal Top	480'
PC	520'
Cliffhouse	1700'
Point Lookout	2750'
Total Depth	2900'

2. Estimated Depth of Anticipated Minerals:

Point Lookout (MV)	2750'

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:

Hole Size	Interval	Csg Size	Wt, Grd, Jt
12-1/4"	0-650'	8-5/8"	24.0#, J-55, STC
7-7/8"	0-2900'	4-1/2"	10.5#, J-55, STC

Surface Casing will be cemented with 350 sx (403 cu ft) Type 5 w/ 1/4#/sx of celloflake and 3# Gilsonite (Yield = 1.15 cuft/sx, Weight = 15.8 #/gal). Cement volumes include 50% 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 863 sx (992 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 38 centralizers. Class B or G may be used depending on availability of Type 5.

5. Mud Program:

A produced (FC) water based mud system (PW) 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.

Depth	Type	Wt (ppg)	Vis (sec)	Wtr loss
0-650'	PW	± 8.5	30-33	NC
650'-TD	PW & 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 November 2012 or as soon as permits are received and work can be scheduled. Estimated drilling time is 6 - 8 days. The drilling will utilize a closed loop drilling fluids system. The Mesa Verde will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 10 - 12 days and will commence as soon after completion of drilling operations and scheduling allow.

2-M SYSTEM