State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 5/22/13
Well information;
Operator SG Interests I, Well Name and Number Chaco Slope 22-7-35 #1H

API# 30-043-21154, Section 35, Township 22 (N)S, Range 7 E/(W)

Conditions of Approval:
(See the below checked and handwritten conditions)

- ✓ Notify Aztec OCD 24hrs prior to casing & cement.
- ✓ Hold C-104 for directional survey & "As Drilled" Plat
- ✓ Hold C-104 for (NSL), NSP, DHC , RUN CBL if cement does not circulate
- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- o Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- o Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils

NMOCD Approved by Signature

10-31-13 ca
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

SG Interests VII Ltd at the NE/4 SW/4 HBP Actual NSP & NSL
On Site 10/17/12 w/ Williams

NUS:
APDP: N/A
MP: N/A
SMA: BLM
BOND: SWZC
CA/PA: N/A

Form 3160-3
(March 2012)

RECEIVED
MAY 23 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM99740 ✓
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.: Chaco Slope 22-7-35 #1H ✓

2. Name of Operator: SG Interests I, LTD
9. API Well No.: 30-043- 21154

3a. Address: P. O. Box 2677, Durango, Co, 81302-2677
3b. Phone No. (include area code): 970-259-2701 or 505-634-6393
10. Field and Pool, or Exploratory: ~~Wildcat Gallup~~ Rusty Gallup ✓

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface A: 800' FNL & 250' FEL NENE ✓
At proposed prod. zone D: 170' FNL & 700' FWL NWNW ✓
11. Sec., T. R. M. or Blk. and Survey or Area: Sec 35, Twp. 22N, Rge. 7W ✓

14. Distance in miles and direction from nearest town or post office*: 8.5 miles SSW of Counselor, NM
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): 250'
16. No. of acres in lease: 2238.72 2239 ac.
17. Spacing Unit dedicated to this well: 320 ✓ Acres - N/2 Sec 35

RCVD OCT 24 '13
OIL CONS. DIV.

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: NA
19. Proposed Depth: 4675' ✓ TVD
20. BLM/BIA Bond No. on file: NM 1935

DIST. 3

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 6946' GL ✓
22. Approximate date work will start*: 09/01/2013
23. Estimated duration: 11/01/2013

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: Mike L. Mankin — Name (Printed/Typed): Mike L. Mankin — Date: 05/22/2013

Title: Agent for SG Interests I, LTD

Approved by (Signature): Mankiewicz — Name (Printed/Typed): — Date: 10/1/13

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)

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

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

NMOCD

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

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

RECEIVED

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

MAY 23 2013
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
30-043-21158	52860	Rusty Gallup Gas Pool

4 Property Code	5 Property Name	6 Well Number
40199	CHACO SLOPE 22-7-35	1H

7 OGRID No.	8 Operator Name	9 Elevation
20572	SG INTERESTS I, LTD.	6946

10 Surface Location

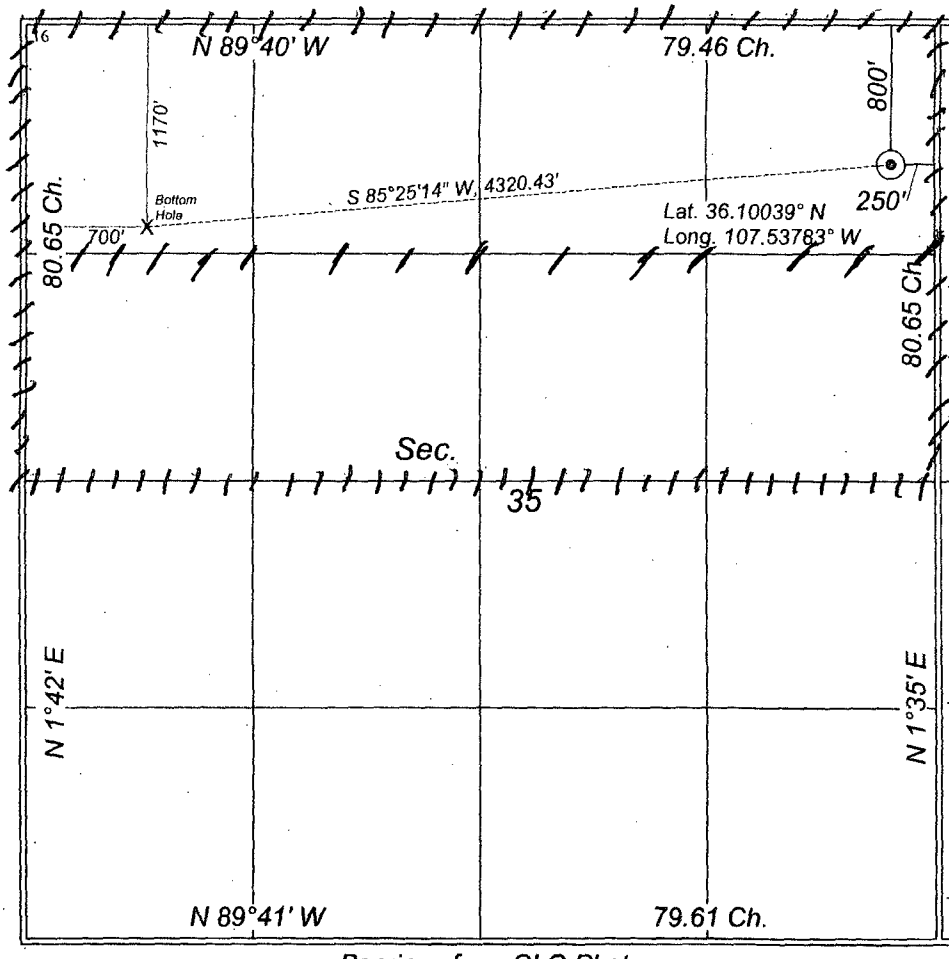
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South Line	Feet from the	East/West Line	County
A	35	22 N	7 W		800	North	250	East	Sandoval

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
D	35	22 N	7 W		1170	North	700	West	Sandoval

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
~~320~~ NA 160 N/2/NP			

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.

Mike L. Mankin 5-22-13
Signature Date

Mike L. Mankin
Printed Name

mgcattle@yahoo.com
E-mail Address

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.

FEBRUARY 2012
Date of Survey

Signature and Seal of Professional Surveyor:

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

William E. Mahnke II
Certificate Number 8466

ENERGY SURVEYORS, INC.

P.O. Box 991
Farmington, NM 87499

Phone: 505-325-4005 Cell: 505-360-8142

Access Description for Chaco Slope 22-7-35 #1

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 (Rd. #46),

8.9 miles- Turn right onto lease road,
9.4 miles- Turn left and follow flagged access road and two-track trail,
11.9 miles- Turn right and follow flagged access road ±260 feet to location.

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

Chaco Slope 22-7-35 #1
NENE/4 Sec 35, T22N-R7W
800' FNL & 250' FEL
Lat 36.10039, Long -107.53783
Sandoval County, New Mexico

EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

	Depth
Ojo Alamo	590'
Pictured Cliffs	1140'
Bentonite	1630'
LaVentana	1890'
Cliff House	2190'
Point Lookout	3500'
Mancos	3625'
Niobrara	4175'
Gallup	4450'
Horizontal Target	4675'

2. Estimated Depth of Anticipated Minerals:

Gas	Fruitland	650'
Oil	Menefee	2100'
Oil	Gallup	4450'

3. Minimum Specifications for Pressure Control Equipment:

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160. (See attached diagram).

A 3000 psig 11" Double Ram hydraulic BOP, an 11" Annular type BOP and a 3000 psi rotating head will be used. Accessories to the BOP will meet BLM requirements for a 3000 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, 2" positive chokes, and pressure gauge.

4. Casing and Cementing Program:

Hole Size	Interval	Csg Size	Wt, Grd, Jt
12-1/4"	0-500'	9-5/8"	36#, J-55, STC
8-3/4"	0-5002'	7"	26#, N-80, LTC
6-1/8""	4100'- 8757'	4-1/2"	11.6#, N-80, LTC

Surface Casing will be cemented with 275 sx (322 cu ft) Class "G" w/1/8#/sx of polyflake (Yield = 1.17 cu ft/sx, Weight = 15.8 #/gal). Cement volumes include 100% excess to circulate cement to surface. A guide shoe, differential float collar and 6 centralizers will be used. WOC time is 8 hours *and* until surface samples are hard. The casing will be pressure tested to 1500 psig.

Intermediate Casing will be cemented with **Lead** - 460 sx (851 cu ft) Premium Lite + 1/8#/sx of polyflake and 5#/sx LCM (Yield = 1.85 cu ft/sx, Weight = 12.5 #/gal) and **Tail** – 100 sx (115 cu ft) Class "G" +. 1/8#/sx polyflake. Cement volumes include 30% excess to circulate cement to surface. A float shoe, and float collar will be used. Centralizers will be run on the first 10 joints and every 3rd joint thereafter to surface. WOC time is minimum 12 hours *and* until surface samples are hard. The casing will be pressure tested to 1500 psig.

Production Casing will be cemented with - **Lead** - 50 sx (59 cu ft) Type V, (Yield = 1.18 cu ft/sx, Weight = 15.6 #/gal), **Main** – 230 sx (329 cu ft) Foamed 50/50 Poz + .2% Versaset, (Yield = 1.43 cu ft/sx, Weight = 13.0 #/gal), and **Tail** – 100 sx (128 cu ft) 50/50 Poz + .2% Versaset, (Yield = 1.28 cu ft/sx, Weight = 13.5 #/gal). Circulate only if necessary until TD is reached. Cement liner to liner top. A float shoe, and float collar will be used. Centralizers will be run on every joint of casing from the shoe thru the curve.

5. Mud Program:

A fresh water native mud (using lime, benex & gel additions) will be used to drill the surface hole. The 8-3/4" hole will be drilled with native mud and a LSND mud as necessary for hole stability from the surface shoe to the intermediate casing point. The horizontal lateral will be drilled with oil based mud.

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

A closed loop mud system will be used on all phases of the well. Above ground tanks will be used to hold fluids and cuttings. Wastes will be disposed of properly at an EPA approved site. Fresh water/cuttings will be disposed of at an approved site such as Industrial Ecosystems or Basin Disposal.

Mud Interval, MD	Mud Type	Funnel Weight	Water Viscosity	Loss
0' – 500'	Native	8.5-9.1	30-50	1-10
500' – 5002'	Native/LSND	8.5–9.3	30–50	8–10
5002'- TD	Oil Based	7.5-9.3	30–50	8–10

6. Testing, Coring and Logging Program:

No DST's or cores are planned. A mud logger will be on location from drilling of the casing shoe to TD. Any Open-hole logs will include GR, Induction, Density and Caliper Logs. The GR-Density logs and GR-Induction-Caliper logs will be run from TD to the bottom of the surface casing. Cased hole CBL/CCL/GR/VDL will be run as needed for perforating.

7. Anticipated Abnormal Pressures and Temperatures:

No abnormal pressures or temperatures are expected in this well. Maximum anticipated Gallup reservoir pressure is 2035 psig with a normal temperature gradient.

No H_2S is anticipated, but if H_2S is encountered the guidelines in Onshore Order #6 will be followed.

8. Operations:

Anticipated spud date is June 2013 or as soon as permits are received and work can be scheduled. Estimated drilling time is 45 days. The Gallup will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 15 days and will commence as soon after completion of drilling operations and scheduling allow.

SG INTERESTS I, Ltd.

Horizontal Gallup Test Well

Drilling Procedure

January, 2013

Bob Sagle, P.E.

WELL NAME:	Chaco Slope 22-7-35 #1
FIELD NAME:	Gallup Wildcat
SURFACE LOCATION:	NENE ¼, Section 35, T22N, R7W 800' FNL, 250' FEL UL-A Lat 36.10039° N, Long -107.53783° W Sandoval County, New Mexico
BOTTOM HOLE LOCATION:	NWNW ¼, Section 35, T22N, R7W 1170' FNL, 700' FWL
ELEVATION:	6946 GL
PROPOSED TD:	4675' TVD, MD 8757'
DATE:	January, 2013

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 on Hwy 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 (Rd # 46):

AT: 15.4 miles – Turn right (northwest) and follow access road,
" 16.1 miles – Turn left (west) still following access road,
" 16.5 miles – Turn right and follow access road ±1675 feet to location.

DRILLING SKELETON:

Interval	Hole Size	Casing Size	Measured Depth, ft	TVD, ft
Surface	12 ¼"	9 5/8"	500	500
Intermediate	8 ¾"	7"	5002	4675
Production Liner	6 1/8"	4 ½"	8757	4675

NOTE: the production liner will be tied back to surface and used for a fracture string. It will likely be removed following completion.

MUD PROGRAM:

Mud Interval, MD	Mud Type	Funnel Weight	Water Viscosity	Loss
0' – 500'	Native	8.5 - 9.1	30 - 50	1 - 10
500' – 5002'	Native/LSND	8.5 – 9.3	30 – 50	8 – 10
5002'- TD	Oil Based	7.5 - 9.3	30 – 50	8 – 10

CASING AND CEMENTING PROGRAM:

Interval	Size, Wt, Grade, Thread	Depth, MD	Cement
Surface	9 5/8", 36#, J55 STC	500'	275sx Class G + 1/8 #/sx poly-flake + 2% CACL
Intermediate	7", 26# , N80, LT&C	5002'	460 sx Premium Lite + 5#/sx LCM + 1/8#/sx poly-flake
		Followed by:	100 sx Class G + 1/8#/sx poly-flake
Production	4 ½", 11.6#, N-80, LT&C	TD	50 sx Type V
			230 sx Foamed 50/50 Poz + .2% Versaset
			100 sx 50/50 Poz + .2% Versaset

Liner will be tied back to surface during fracture treatments, then likely removed.

WELLHEAD:

3000# 9-5/8" 3M x 9 5/8" 8rd casing head
3000# 7 1/16" 3M x 7 1/16" 3M casing spool with flanged gate valves
3000# 7 1/16" 3M x 7-1/16" 3M tubing head with RTJ flanged gate valves",
3000# B2P, 7-1/16" 3M x 3-1/8" 3M Upper tree adapter with RTJ flanged gate valve.

NOTE: section must accommodate 4 ½" tie back frac string.

BLOWOUT PREVENTION EQUIPMENT REQUIREMENTS:

Description	Rating
11" Double Ram" Type Preventer	3000 psi
11 "Annular" Preventer	3000 psi
Rotating Head	3000 psi

BOPE testing will be done by a third party tester 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 and will include a low pressure test requirement of 250 psig and a high pressure test requirement of 100% of rated working pressure for the ram type BOPE(3000 psi) and 50% of rated working pressure for the annular BOPE(1500 psi). Casing and manifold pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the test.

GEOLOGIC PROGNOSIS:

Elevations: GL ~ 6946', KB ~ 6961'

Formation Tops	Depth
Ojo Alamo	590'
Pictured Cliffs	1140'
Bentonite	1630'
LaVentana	1890'
Cliff House	2190'
Point Lookout	3500'
Mancos	3625'
Niobrara	4175'
Gallup	4450'
Horizontal Target	4675'

Note: A mud logger will be on location from drilling of the surface shoe to TD.

DIRECTIONAL DRILLING PROGRAM: (directional plans attached)

An 8 ¾" vertical hole will be drilled into the Niobrara at 4102'. The hole will be kicked off and angle built at 10 degrees/100' to an inclination of 90 degrees to the 7" intermediate casing point in the Gallup Formation. A 6 1/8" hole will be drilled horizontally to TD.

MUD PROGRAM:

A fresh water native mud (using lime, benex & gel additions) will be used to drill the surface hole. The 8-3/4" hole should be drilled with native mud and a LSND mud as necessary for hole stability from the surface shoe to the intermediate casing point. The horizontal lateral will be drilled with oil based mud.

The Fruitland Coal and Mesa Verde 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.

A closed loop mud system will be used on all phases of the well. Above ground tanks will be used to hold fluids and cuttings. Wastes will be disposed of properly at an EPA approved site. Fresh water/cuttings will be disposed of at an approved site such as Industrial Ecosystems or Basin Disposal.

CASING AND CEMENTING PROCEDURE:

Note: Notify BLM 24 hours prior to spud, testing of BOP's and cementing.
505-599-8907. NMOCD needs to be notified 24 hrs in advance of cementing.

Surface Casing:

1. Drill to a minimum of 500' to accommodate tallied 9 5/8" casing plus 3'. Casing tally to be taken on location.
2. Use a landing joint of 9 5/8" casing to set casing at ground level. Guide shoe on casing should be not more than 10 feet off bottom. Casing head flange to be set at ground level.
3. Roll casing off truck with thread protectors in place.
4. 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.
5. Bakerlok 9 5/8" guide shoe to bottom of first joint of casing.
6. Bakerlok 9 5/8" differential float collar to top of first joint of casing. Bakerlok second joint of casing into top of float collar
7. Casing should be made up to proper torque using an API thread compound.
8. 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).

Surface Casing cont.

9. Break circulation at 250 feet and 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. Rotate pipe before kicking in pumps. Kick pumps in slowly to minimize surge pressures.**
10. Centralizers should be run on each of the first 6 joints. A stop-ring should be used to hold the first centralizer in place. Place the remaining centralizers on collars.
11. 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.
12. Rig up rotational cementing head and return lines. Chixson should be long enough to allow 25'-30' reciprocation.
13. Pump 10 barrels of fresh water. Pump 20 barrel chemical wash. Pump cement slurry. Wash lines.
14. 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.
15. 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).
16. Wait on cement a minimum of 8 hours or until surface samples are hard, whichever is longer **before** nippling up the BOP. Test BOP's. Test surface casing to 1500#.

Intermediate Casing:

1. Drill to intermediate csg pt.
2. Roll casing off truck with thread protectors in place.
3. Change out pipe rams to accommodate 7" casing.
4. 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.
5. Bakerlok 7" float shoe to bottom of first joint of casing.
6. Bakerlok 7" differential float collar to top of first joint of casing. Bakerlok second joint of casing into top of float collar
7. Casing should be made up to proper torque using an API thread compound.
8. 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).
9. Break circulation at 2000 feet, and 4000 feet and circulate each a minimum of 30 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.

Intermediate Casing cont.

10. Centralizers should be run on each of the first 10 joints, and every 3rd joint to surface. A stop-ring should be used to hold the first centralizer in place. Place the remaining centralizers on collars.
11. After casing is landed just above TD, circulate hole until mud properties measured at the flowline are within the ranges given in the "Mud Program" of this drilling prognosis.
12. Rig up rotational cementing head and return lines. Chixson should be long enough to allow 25'-30' reciprocation.
13. Pump 10 barrels of fresh water. Pump 20 barrel chemical wash. Pump cement slurry. Wash lines.
14. Drop top plug and displace with water. Do not over-displace. If Possible, pipe should be rotated at 10-20 RPM or reciprocated at least 20 feet every two to three minutes throughout displacement. Bump plug with 500 psi over final displacement pressure. Hold pressure for 4 hours or until cement is set, to avoid the potential of collapsed casing. If plug does not bump, hold initial shut down pressure on casing for 4 hours or until cement is set.
15. Wait on cement a minimum of 12 hours or until surface samples are hard, whichever is longer **before** nippling down the BOP. NUBOP stack and test. Test intermediate csg to 1500#.

Production Casing:

1. Drill to TD and verify depth. Pump hi vis sweep and TOOH. LD directional tools and MWD.
2. P/U BHA and reamer and ream lateral as needed. Circ and TOOH.
3. Bakerlok float shoe. Bakerlok float collar on top of 1st jt.
4. TIH w/ 4 ½" liner, and liner hanger packer on DP/HWDP. NOTE: liner hanger packer to have PBR and be set in vertical section of well.
5. Run one slider centralizer on every jt of casing from the shoe through the curve.
6. Circulate @ 7" csg shoe and note pressures. Circulate only if necessary until TD is reached. Circulate @ TD.
7. Cement liner to liner top, set liner hanger PKR. Reverse out cement. Test back side.
8. TOOH and LDDP/HWDP.
9. TIH w/ 4 ½" tie back frac string. Latch liner hanger PKR and space out. Circulate well clean with KCL water. Land in WH hanger. Test liner and back side.
10. NDBOP and NUWH.
11. Rig down.

Cement Slurry Designs and Notes

Slurry	Cement & Additives	Water gals/sx	Weight PPG	Yield cu ft/sx
Surface	Class G + 1/8 #/sx poly flake + 2% CACL	5.0	15.8	1.17
Intermediate				
Lead	Premium Lite + 1/8#/sx Poly flake + 5#/sx LCM	9.33	12.5	1.85
Tail	Class G + 1/8#/sx poly flake	5.0	15.8	1.15
Production Liner				
Lead	Type V	5.24	15.6	1.18
Foamed CMT	50/50 Poz + .2% Versaset	6.76	13.0	1.43
Tail	50/50 Poz + .2% Versaset	5.67	13.5	1.28

Cement Slurry Designs and Notes cont.

Figure slurry volume as follows:

Surface: Calculate slurry based on hole and casing size annular volumes plus 100% excess.

Intermediate: Calculate slurry based on hole and casing size annular volumes plus 30% excess.

Production: Calculate slurry based on hole and casing size annular volumes + 30% excess.

NOTES:

1. Pump rates should be a minimum of 4 BPM throughout displacement. Slurry weights should be measured using a mud balance at least every 10 minutes during mixing.

2. At least two samples of all slurries should be caught and monitored at room temperature for thickening time.

3. Run temperature log on surface and intermediate casing strings if cement does not circulate. CBL

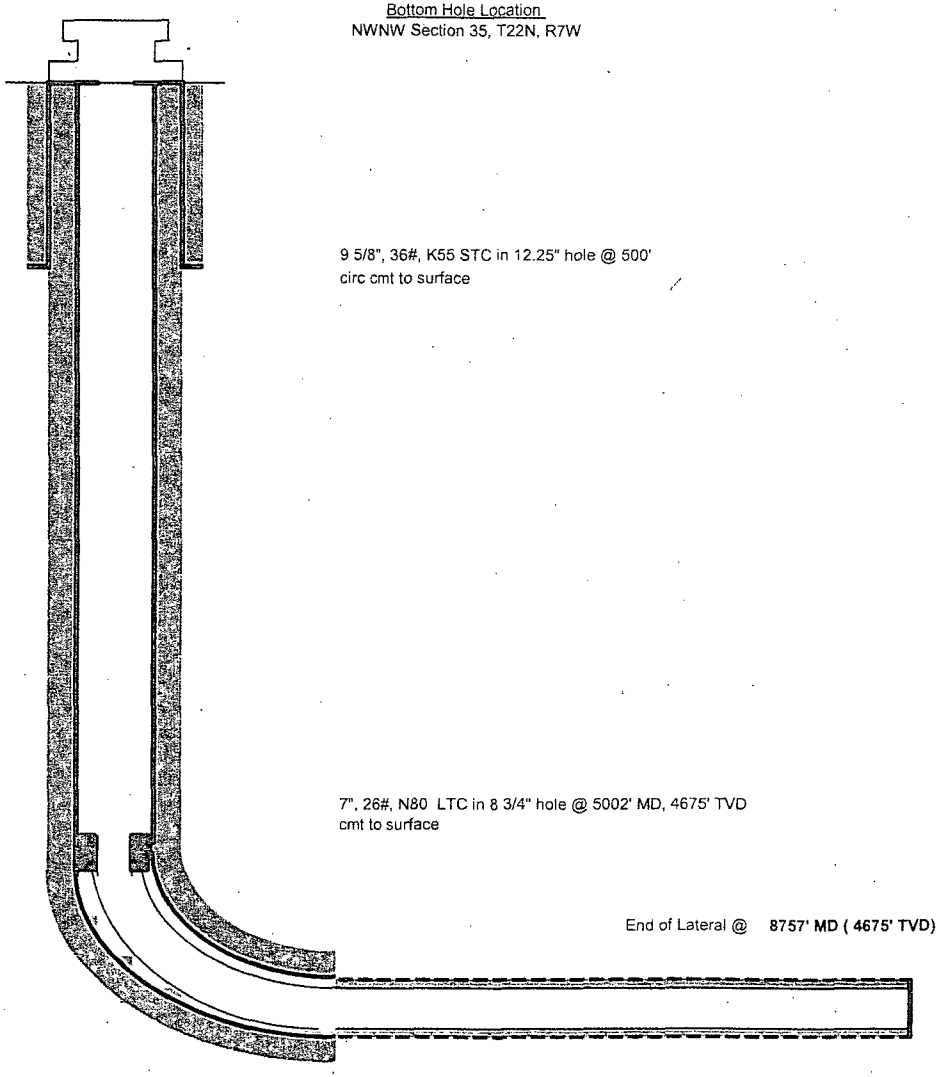
WELLBORE DIAGRAM, Preliminary
SG Interests I, Ltd.
Chaco Slope 22-7-35 #1
GL 6946'

Sandoval Co, NM

Well Info

Surface Location
NENE Section 35, T22N, R7W

Bottom Hole Location
NWNW Section 35, T22N, R7W



500

9 5/8", 36#, K55 STC in 12.25" hole @ 500'
circ cmt to surface

7", 26#, N80 LTC in 8 3/4" hole @ 5002' MD, 4675' TVD
cmt to surface

TOL @ 4100'

Kick off pt @ 4102'

Build @ 10 degrees/100'

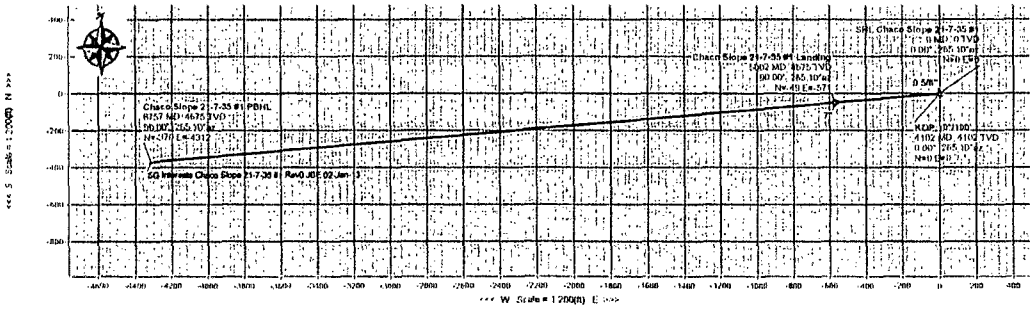
End of Lateral @ **8757' MD (4675' TVD)**

4 1/2", 11.6#, N-80, LTC liner
Cement to Liner Top
Perf and Plug and Frac'd

SG Interests I, Ltd.

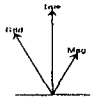
PATHFINDER
A Schlumberger Company

SG Interests Chaco Slope 21-7-35 #1	NM Sandoval County NAD83	SG Interests Chaco Slope 21-7-35 #1

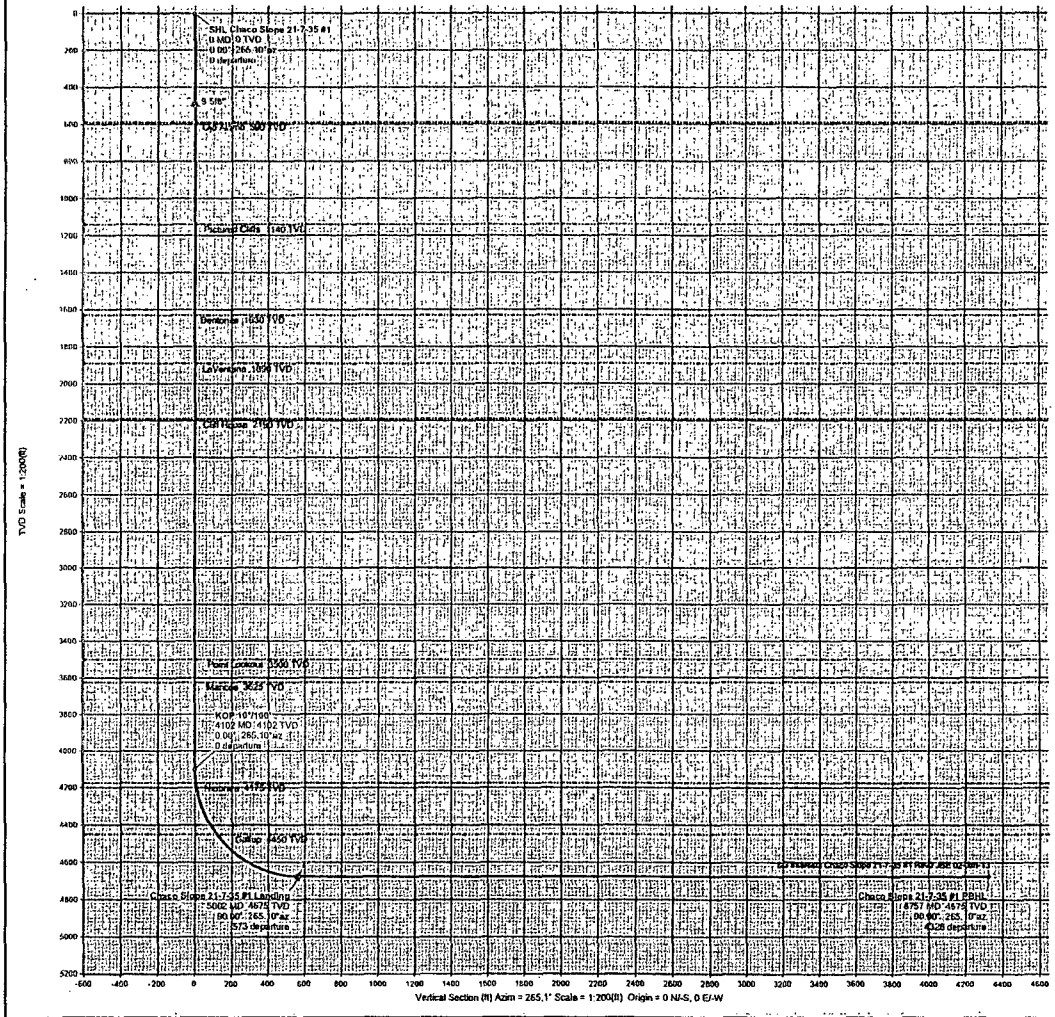


Legend

SG Interests Chaco Slope 21-7-35 #1 Rev0 JBE 02-Jan-13



True North
Tot Corr (M->T 9.5829°)
Mag Dec (9.583°)
Grid Conv (-0.759°)



Critical Points

Comments	Survey MD (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	VS (ft)	N/S (ft)	E/W (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (°/100ft)
SHL Chaco Slope 21-7-35 #1	0.00	0.00	265.10	0.00	0.00	0.00	0.00	0.00	0.00	
Chaco Slope 21-7-35 #1 Landing	5002.04	90.00	265.10	4675.00	572.96	-48.98	-570.86	572.96	265.10	10.00
Chaco Slope 21-7-35 #1 PBHL	8757.04	90.00	265.10	4675.00	4327.95	-370.00	-4312.11	4327.95	265.10	0.00

Drawn By: Mark Lynch
Date Created: January 02, 2013 10:54:34 AM
Checked By:
Checked Date:
Approved By:
Approved Date:

PATHFINDER
A Schlumberger Company

SG Interests Chaco Slope 21-7-35 #1 Rev0 JBE 02-Jan-13 Proposal
Geodetic Report
(Non-Def Plan)

Report Date:	January 02, 2013 - 11:10 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	SG Interests I, Ltd.	**Vertical Section Azimuth:**	265.096 ° (True North)
Field:	NM Sandoval County NAD83	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	SG Interests Chaco Slope 21-7-35 #1 / Chaco Slope 21-7-35 #1	**TVD Reference Datum:**	RKB
Well:	SG Interests Chaco Slope 21-7-35 #1	**TVD Reference Elevation:**	6961.000 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	6946.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	9.583 °
Survey Name:	SG Interests Chaco Slope 21-7-35 #1 Rev0 JBE 02-Jan-13	**Total Gravity Field Strength:**	999.1563 mgn (9.8 based)
Survey Date:	January 02, 2013	**Total Magnetic Field Strength:**	50184.529 nT
Tort / AHD / DDI / ERD Ratio:	90.000 ° / 4327.955 ft / 5.863 / 0.926 °	**Magnetic Dip Angle:**	62.895 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Central Zone, US Feet	**Declination Date:**	January 02, 2013
Location Lat / Long:	N 36° 6' 1.40400", W 107° 32' 16.18800"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 1858326.235 ftUS, E 1259072.635 ftUS	**North Reference:**	True North
CRS Grid Convergence Angle:	-0.7589 °	**Grid Convergence Used:**	0.0000 °
Grid Scale Factor:	1.00006563	**Total Corr Mag North->True North:**	9.5829 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Chaco Slope 21-7-35 #1	0.00	0.00	265.10	0.00	0.00	0.00	0.00	N/A	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	100.00	0.00	265.10	100.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	200.00	0.00	265.10	200.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	300.00	0.00	265.10	300.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	400.00	0.00	265.10	400.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
9 5/8"	*500.00*	*0.00*	*265.10*	*500.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
Ojo Alamo	*590.00*	*0.00*	*265.10*	*590.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	600.00	0.00	265.10	600.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	700.00	0.00	265.10	700.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	800.00	0.00	265.10	800.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	900.00	0.00	265.10	900.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1000.00	0.00	265.10	1000.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1100.00	0.00	265.10	1100.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Pictured Cliffs	*1140.00*	*0.00*	*265.10*	*1140.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	1200.00	0.00	265.10	1200.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1300.00	0.00	265.10	1300.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1400.00	0.00	265.10	1400.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1500.00	0.00	265.10	1500.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1600.00	0.00	265.10	1600.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Bentonite	*1630.00*	*0.00*	*265.10*	*1630.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	1700.00	0.00	265.10	1700.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	1800.00	0.00	265.10	1800.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
LaVentana	*1890.00*	*0.00*	*265.10*	*1890.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	1900.00	0.00	265.10	1900.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2000.00	0.00	265.10	2000.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2100.00	0.00	265.10	2100.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Cliff House	*2190.00*	*0.00*	*265.10*	*2190.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	2200.00	0.00	265.10	2200.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2300.00	0.00	265.10	2300.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2400.00	0.00	265.10	2400.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2500.00	0.00	265.10	2500.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2600.00	0.00	265.10	2600.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2700.00	0.00	265.10	2700.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2800.00	0.00	265.10	2800.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	2900.00	0.00	265.10	2900.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3000.00	0.00	265.10	3000.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3100.00	0.00	265.10	3100.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3200.00	0.00	265.10	3200.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3300.00	0.00	265.10	3300.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3400.00	0.00	265.10	3400.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Point Lookout	*3500.00*	*0.00*	*265.10*	*3500.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	3600.00	0.00	265.10	3600.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Mancos	*3625.00*	*0.00*	*265.10*	*3625.00*	*0.00*	*0.00*	*0.00*	*0.00*	*1858326.24*	*1259972.63*	*N 36 6 1.40*	*W 107 32 16.19*
	3700.00	0.00	265.10	3700.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3800.00	0.00	265.10	3800.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	3900.00	0.00	265.10	3900.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	4000.00	0.00	265.10	4000.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
	4100.00	0.00	265.10	4100.00	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
KOP 10°/100'	4102.04	0.00	265.10	4102.04	0.00	0.00	0.00	0.00	1858326.24	1259972.63	N 36 6 1.40	W 107 32 16.19
Niobrara	*4175.20*	*7.32*	*265.10*	*4175.00*	*4.66*	*-0.40*	*-4.65*	*10.00*	*1858325.90*	*1259967.98*	*N 36 6 1.40*	*W 107 32 16.24*
	4200.00	9.80	265.10	4199.52	8.35	-0.71	-8.32	10.00	1858325.63	1259964.30	N 36 6 1.40	W 107 32 16.29
	4300.00	19.80	265.10	4296.09	33.86	-2.89	-33.73	10.00	1858323.79	1259938.86	N 36 6 1.38	W 107 32 16.60
	4400.00	29.80	265.10	4386.75	75.74	-6.48	-75.47	10.00	1858320.76	1259897.08	N 36 6 1.34	W 107 32 17.11
Gallup	*4475.99*	*37.39*	*265.10*	*4450.00*	*117.76*	*-10.07*	*-117.33*	*10.00*	*1858317.72*	*1259855.18*	*N 36 6 1.30*	*W 107 32 17.62*
	4500.00	39.80	265.10	4468.77	132.74	-11.35	-132.25	10.00	1858316.64	1259840.24	N 36 6 1.29	W 107 32 17.80
	4600.00	49.80	265.10	4539.64	203.11	-17.36	-202.36	10.00	1858311.55	1259770.05	N 36 6 1.23	W 107 32 18.65
	4700.00	59.80	265.10	4597.21	284.71	-24.34	-283.67	10.00	1858305.65	1259688.65	N 36 6 1.16	W 107 32 19.64
	4800.00	69.80	265.10	4639.74	375.08	-32.07	-373.70	10.00	1858299.12	1259598.52	N 36 6 1.09	W 107 32 20.74
	4900.00	79.80	265.10	4665.94	471.45	-40.30	-469.73	10.00	1858292.15	1259502.38	N 36 6 1.01	W 107 32 21.91
	5000.00	89.80	265.10	4675.00	570.92	-48.81	-568.83	10.00	1858284.96	1259403.18	N 36 6 0.92	W 107 32 23.12
7"												
Chaco Slope 21-7-35 #1 Landing	*5002.04*	*90.00*	*265.10*	*4675.00*	*572.96*	*-48.98*	*-570.86*	*10.00*	*1858284.82*	*1259401.14*	*N 36 6 0.92*	*W 107 32 23.14*
	5100.00	90.00	265.10	4675.00	670.92	-57.36	-668.46	0.00	1858277.73	1259303.43	N 36 6 0.84	W 107 32 24.33
	5200.00	90.00	265.10	4675.00	770.92	-65.91	-768.09	0.00	1858270.50	1259203.69	N 36 6 0.75	W 107 32 25.55
	5300.00	90.00	265.10	4675.00	870.92	-74.46	-867.73	0.00	1858263.28	1259103.94	N 36 6 0.67	W 107 32 26.76
	5400.00	90.00	265.10	4675.00	970.92	-83.00	-967.36	0.00	1858256.05	1259004.20	N 36 6 0.58	W 107 32 27.98
	5500.00	90.00	265.10	4675.00	1070.92	-91.55	-1066.99	0.00	1858248.82	1258904.45	N 36 6 0.50	W 107 32 29.19
	5600.00	90.00	265.10	4675.00	1170.92	-100.10	-1166.63	0.00	1858241.59	1258804.71	N 36 6 0.41	W 107 32 30.40
	5700.00	90.00	265.10	4675.00	1270.92	-108.65	-1266.26	0.00	1858234.36	1258704.96	N 36 6 0.33	W 107 32 31.62
	5800.00	90.00	265.10	4675.00	1370.92	-117.20	-1365.90	0.00	1858227.13	1258605.22	N 36 6 0.24	W 107 32 32.83
	5900.00	90.00	265.10	4675.00	1470.92	-125.75	-1465.53	0.00	1858219.90	1258505.47	N 36 6 0.16	W 107 32 34.05
	6000.00	90.00	265.10	4675.00	1570.92	-134.30	-1565.16	0.00	1858212.67	1258405.73	N 36 6 0.08	W 107 32 35.26
	6100.00	90.00	265.10	4675.00	1670.92	-142.85	-1664.80	0.00	1858205.44	1258305.98	N 36 5 59.99	W 107 32 36.47
	6200.00	90.00	265.10	4675.00	1770.92	-151.40	-1764.43	0.00	1858198.21	1258206.24	N 36 5 59.91	W 107 32 37.69
	6300.00	90.00	265.10	4675.00	1870.92	-159.95	-1864.07	0.00	1858190.98	1258106.50	N 36 5 59.82	W 107 32 38.90
	6400.00	90.00	265.10	4675.00	1970.92	-168.50	-1963.70	0.00	1858183.75	1258006.75	N 36 5 59.74	W 107 32 40.12
	6500.00	90.00	265.10	4675.00	2070.92	-177.04	-2063.33	0.00	1858176.52	1257907.01	N 36 5 59.65	W 107 32 41.33

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6600.00	90.00	265.10	4675.00	2170.92	-185.50	-2162.97	0.00	1858168.30	1257807.26	N 36 5 59.57	W 107 32 42.54
	6700.00	90.00	265.10	4675.00	2270.92	-194.14	-2262.60	0.00	1858162.07	1257707.52	N 36 5 59.48	W 107 32 43.76
	6800.00	90.00	265.10	4675.00	2370.92	-202.69	-2362.24	0.00	1858154.84	1257607.77	N 36 5 59.40	W 107 32 44.97
	6900.00	90.00	265.10	4675.00	2470.92	-211.24	-2461.87	0.00	1858147.61	1257508.03	N 36 5 59.31	W 107 32 46.19
	7000.00	90.00	265.10	4675.00	2570.92	-219.79	-2561.50	0.00	1858140.38	1257408.28	N 36 5 59.23	W 107 32 47.40
	7100.00	90.00	265.10	4675.00	2670.92	-228.34	-2661.14	0.00	1858133.15	1257308.54	N 36 5 59.14	W 107 32 48.61
	7200.00	90.00	265.10	4675.00	2770.92	-236.89	-2760.77	0.00	1858125.92	1257208.79	N 36 5 59.06	W 107 32 49.83
	7300.00	90.00	265.10	4675.00	2870.92	-245.44	-2860.41	0.00	1858118.69	1257109.05	N 36 5 58.98	W 107 32 51.04
	7400.00	90.00	265.10	4675.00	2970.92	-253.99	-2960.04	0.00	1858111.46	1257009.30	N 36 5 58.89	W 107 32 52.26
	7500.00	90.00	265.10	4675.00	3070.92	-262.53	-3059.67	0.00	1858104.23	1256909.56	N 36 5 58.81	W 107 32 53.47
	7600.00	90.00	265.10	4675.00	3170.92	-271.08	-3159.31	0.00	1858097.00	1256809.81	N 36 5 58.72	W 107 32 54.68
	7700.00	90.00	265.10	4675.00	3270.92	-279.63	-3258.94	0.00	1858089.77	1256710.07	N 36 5 58.64	W 107 32 55.90
	7800.00	90.00	265.10	4675.00	3370.92	-288.18	-3358.57	0.00	1858082.55	1256610.32	N 36 5 58.55	W 107 32 57.11
	7900.00	90.00	265.10	4675.00	3470.92	-296.73	-3458.21	0.00	1858075.32	1256510.58	N 36 5 58.47	W 107 32 58.33
	8000.00	90.00	265.10	4675.00	3570.92	-305.28	-3557.84	0.00	1858068.09	1256410.83	N 36 5 58.38	W 107 32 59.54
	8100.00	90.00	265.10	4675.00	3670.92	-313.83	-3657.48	0.00	1858060.86	1256311.09	N 36 5 58.30	W 107 33 0.75
	8200.00	90.00	265.10	4675.00	3770.92	-322.38	-3757.11	0.00	1858053.63	1256211.35	N 36 5 58.21	W 107 33 1.97
	8300.00	90.00	265.10	4675.00	3870.92	-330.93	-3856.74	0.00	1858046.40	1256111.60	N 36 5 58.13	W 107 33 3.18
	8400.00	90.00	265.10	4675.00	3970.92	-339.48	-3956.38	0.00	1858039.17	1256011.86	N 36 5 58.04	W 107 33 4.40
	8500.00	90.00	265.10	4675.00	4070.92	-348.03	-4056.01	0.00	1858031.94	1255912.11	N 36 5 57.96	W 107 33 5.61
	8600.00	90.00	265.10	4675.00	4170.92	-356.57	-4155.65	0.00	1858024.71	1255812.37	N 36 5 57.87	W 107 33 6.83
	8700.00	90.00	265.10	4675.00	4270.92	-365.12	-4255.28	0.00	1858017.48	1255712.62	N 36 5 57.79	W 107 33 8.04
Chaco Slope 21-7-35 #1 PBHL	8757.04	90.00	265.10	4675.00	4327.95	-370.00	-4312.11	0.00	1858013.36	1255655.73	N 36 5 57.74	W 107 33 8.73

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	15.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / SG Interests Chaco Slope 21-7-35 #1 Rev0
	15.000	8757.039	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / SG Interests Chaco Slope 21-7-35 #1 Rev0

BOP STACK
ALL 3000 PSIG
(Annular Preventer Included)