

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER Nephi City #1-36								
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT WILDCAT								
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME								
6. NAME OF OPERATOR BISON OPERATING COMPANY, LLC						7. OPERATOR PHONE 918 482-5450								
8. ADDRESS OF OPERATOR 8086 S. Yale Ave. Suite 119, Tulsa, OK, 74136						9. OPERATOR E-MAIL mharison@valornet.com								
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) FEE			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>								
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Nephi City						14. SURFACE OWNER PHONE (if box 12 = 'fee') 435-623-0822								
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 21 E. 100 North, Nephi, UT 84648						16. SURFACE OWNER E-MAIL (if box 12 = 'fee') rmcknight@nephi.utah.gov								
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>								
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN		
LOCATION AT SURFACE		466 FNL 466 FWL		NWNW		36		12.0 S		1.0 E		S		
Top of Uppermost Producing Zone		466 FNL 466 FWL		NWNW		36		12.0 S		1.0 E		S		
At Total Depth		466 FNL 466 FWL		NWNW		36		12.0 S		1.0 E		S		
21. COUNTY JUAB			22. DISTANCE TO NEAREST LEASE LINE (Feet) 972			23. NUMBER OF ACRES IN DRILLING UNIT 40								
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 7500			26. PROPOSED DEPTH MD: 2000 TVD: 2000								
27. ELEVATION - GROUND LEVEL 6335			28. BOND NUMBER 48007359			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE purchase from Nephi City								
<b>Hole, Casing, and Cement Information</b>														
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight				
SURF	17.5	13.375	0 - 200	48.0	H-40 ST&C	0.0	Premium Plus	200	1.19	15.6				
I1	8.75	7	0 - 850	23.0	J-55 ST&C	0.0	CBM Lite	75	4.12	10.5				
							Premium Plus	50	1.19	15.6				
PROD	6.25	4.5	0 - 2000	10.5	J-55 ST&C	0.0	50/50 Poz	0	0.0	0.0				
							50/50 Poz	175	1.22	14.35				
<b>ATTACHMENTS</b>														
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>														
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN								
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER								
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP								
NAME Mark F. Harison				TITLE President, PIMC, Manager				PHONE 918 482-5450						
SIGNATURE				DATE 07/31/2013				EMAIL mharison@valornet.com						
API NUMBER ASSIGNED 43023500020000				APPROVAL  Permit Manager										

**BISON OPERATING, LLC.****DRILLING PROGNOSIS**

Nephi City 1-36 well  
NW NW Section 36 –T12S-R01E  
Juab Co., Utah

**BRIEF DRILLING PLAN**

Drill an exploratory well to test the Jurassic Navajo Sandstone formation to a total depth of 2,000'. Deviation will be monitored by performing periodic wireline retrievable surveys with angle-only equipment. No abnormal pressure or hydrogen sulfide gas is anticipated. The projected surface and bottom hole locations are as follows:

Surface Location: 466' fnl & 466' fwl of Sec 36 T12S - R01E  
 BHL @ top of Navajo (1800' TVD) 466' fnl & 466' fwl of Sec 36 T12S - R01E  
 BHL @ total depth (2000' TVD) 466' fnl & 466' fwl of Sec 36 T12S - R01E

A combination air/mud rotary drilling rig will be moved in. A 17-1/2" hole section will be drilled with air to 200'. 13-3/8" surface casing will be run and cemented to surface. 8-3/4" hole will be drilled to 850' at which depth 7" intermediate casing will be run and cemented to surface. A 6-1/4" hole will then be drilled to the anticipated total depth of 2000'. Electric logs of the open hole are not planned. If warranted 4-1/2" production casing will be set and cemented a minimum of 500' above any potentially productive interval. A Navajo completion attempt will then likely be made.

**EMERGENCY NUMBERS – dial 911 or**

Central Valley Medical Center, Nephi	(435) 623-3000
Medical Helicopter	(800)-453-0120
Juab County Sheriff Department, Nephi	(801) 578-9032
Utah Highway Patrol	(435) 623-1018
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

**Utah Division of Oil, Gas and Mining**

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

**GENERAL INFORMATION****OBJECTIVE:** Navajo @ 1800' TVD**ELEVATION:** 6335' GR**PROJECTED TOTAL DEPTH:**

2000' TVD; 2000' MD

**SURFACE LOCATION:**

466' fnl &amp; 466' fwl of Sec 36 T12S - R01E

**COUNTY:** Juab**STATE:** Utah**DIRECTIONS TO LOCATION:** Take exit #225 (Nephi) from I-15, turn east on UT-132 for 2.3 miles, then left or north up hill on lease road about 1 mile to well.**PROPOSED CASING PROGRAM:**

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth
17-1/2"	13-3/8"	48.0#	H-40	STC	0-200'
8-3/4"	7"	23.0#	J-55	STC	0' - 850'
6-1/4"	4-1/2"	10.5#	J-55	STC	0' - 2000'

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
17-1/2"	13-3/8"	12.559	14.375	.6946	NA	.8818
8-3/4"	7"	6.241	7.656	.1503	.6145	.2210
6-1/4"	4-1/2"	3.927	5.000	.1026	.1106	.0896

**GEOLOGIC FORMATIONS:**

Formation	Interval (TVD)	Interval (MD)	Lithology
Surface	0-200'	0-200'	Shale, Lime, clay
Arapien	200' - 1600'	200' - 1600'	Sh,siltstn,salt,evaporates
Twin Creek	1600 - 1800'	1600' - 1800'	Limestone
Navajo	1800' - 2000'	1800' - 2000'	Sandstone w/ minor shale

**CONSTRUCTION OF SURFACE LOCATION**

300' x 300' total pad area including pit area

50' x 50' x 8' Reserve Pit

72" diameter tin horn cellar, 6' deep.

**SECTION 1 - SURFACE HOLE: 0' to 200'**

Drill a 17-1/2" hole with an air/mist rig to approximately 200'. Make hole to fit 13-3/8" casing. Maintain hole angle less than 3 degrees and dogleg severity less than 1.5 degrees per 100 ft.

**PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE**

20" drive pipe x 6ft with 20" drilling nipple with rotating head and blooie line for air/mist drilling

**MUD PROGRAM FOR SURFACE HOLE**

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
0 -200'	na	air/mist	na	na

**CASING PROGRAM FOR SURFACE HOLE**

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0 - 200'	13-3/8"	200'	48#	H-40	ST&C	

**Casing Running Sequence:**

13-3/8" 48# H-40 ST&C csg to surface. Use centralizers every joint on bottom 3 jts. RU cement co., hold safety meeting, test lines, cement 13-3/8" casing using the cementing guide below. Displace a wiper plug to 160 ft with fresh water.

**CEMENTING PROGRAM FOR SURFACE CASING**

**Lead:** none  
Mixed at: ppg  
Yield: ft<sup>3</sup>/sx

**Tail:** 200 sx Premium Plus  
Mixed at: 15.6 ppg  
Yield: 1.19 ft<sup>3</sup>/sx

**MUST CIRCULATE CEMENT TO SURFACE** If the cement does **not** circulate to surface be prepared to top out with premium cement.

**WOC A TOTAL OF 24 HOURS:**

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off and install a 16" rotating head and blooie line.

## **SECTION 2 - INTERMEDIATE CASING HOLE:**

Drill an 8-3/4" hole with an air/mist rig to approximately 850'. Make hole to fit 7" casing. Maintain hole angle less than 3 degrees and dogleg severity less than 1.5 degrees per 100 ft.

### **PRESSURE CONTROL & SAFETY EQUIPMENT FOR INTERMEDIATE CASING HOLE**

13-3/8" drilling nipple with rotating head and blooie line for air drilling

### **MUD PROGRAM FOR INTERMEDIATE CASING HOLE**

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
0 -850'	na	air/mist	na	na

Mix & maintain in pit system minimum 250 bbls of fresh water based drilling fluid at 8.4 ppg and 46-48 vis as stand-by mud to displace hole if required.

### **CASING PROGRAM FOR INTERMEDIATE CASING**

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0 - 850'	7"	850'	23#	J-55	ST&C	

#### Casing Running Sequence:

Run GS, (2) jts of 7" 23# J-55 ST&C casing, insert float, remainder of 7" casing to surface. Use centralizers every other joint from TD to 200 feet (9). RU cement co., hold safety meeting, test lines, cement 7" casing using the cementing guide below. Displace a wiper plug with fresh water.

### **CEMENTING PROGRAM FOR INTERMEDIATE CASING**

**Lead:** 75 sx CBM lite

Mixed at: 10.5 ppg  
Yield: 4.12 ft<sup>3</sup>/sx

**Tail:** 50 sx Premium

Mixed at: 15.6 ppg  
Yield: 1.19 ft<sup>3</sup>/sx

#### **WOC A TOTAL OF 24 HOURS:**

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off and install a 10" rotating head and blooie line.

## **SECTION 3 - PRODUCTION CASING HOLE: 850' to 2000'**

Drill a 6-1/4" hole with air/mist to approximately 2000'. If hole conditions dictate, at any time, displace the hole with the stand-by freshwater based mud, trip out of the hole to change the bottom hole assembly to conventional tricone or PDC drilling assembly. Resume drilling to total depth.

### **PRESSURE CONTROL & SAFETY EQUIPMENT FOR PRODUCTION CASING HOLE**

#### **Bottom to Top (see attached 2M BOP diagram)**

7" 2M screw-type independent casing head w/ (2) 2" LPO  
Threaded adapter flange from 7" 2M casing head thread to 7-1/16" 3M flange 7-1/16" 2M x 7-1/16" 2M mud cross with (2) side outlets:  
one outlet 2" kill line  
one outlet 2" choke line  
7-1/16" 2M Double Ram Preventer  
7-1/16" 2M rotating head w/ blooie/flowline (when air drilling)

If switch from air/mist to mud drilling system then connect choke line to 2M (min) choke manifold with pressure gauge  
Maintain upper kelly cock valves with handles available  
Maintain Safety valves and subs to fit all drill string connections in use

#### **Testing Procedure:**

The double ram preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the ram preventer is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

BOPE will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

The choke manifold and related equipment will be pressure tested to 1500 psi. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

**MUD PROGRAM FOR PRODUCTION CASING HOLE**

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
850 -2000'	na	air/mist	na	na

Mix & maintain in pit system minimum 300 bbls of fresh water based drilling fluid at 8.4 ppg and 46-48 vis as stand-by mud to displace hole if required.

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
850' – 2000'	8.6-9.0	FWB	40-50	10cc

**EVALUATION PROGRAM FOR PRODUCTION CASING HOLE**

Mudlogger: From base of surface casing at 200' to TD.

At TD, circulate and condition hole clean for casing. NO logs are planned. Short trip and monitor well closely. Formation evaluation logs will be run through casing during completion.

**CASING PROGRAM FOR PRODUCTION CASING HOLE**

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' – 2000'	4-1/2"	2000'	10.5#	J-55	ST&C	

Rig up casing tools and run 4-1/2" production casing as follows:

Float shoe, 2 shoe joints of 4-1/2" 10.5# J-55 ST&C casing, float collar then run balance of casing to surface using bow centralizers across pay intervals.

**CEMENT PROGRAM FOR PRODUCTION CASING**

**Lead:** 175 sx 50:50 POZ

Mixed at: 14.35 ppg

Yield: 1.22 ft<sup>3</sup>/sx

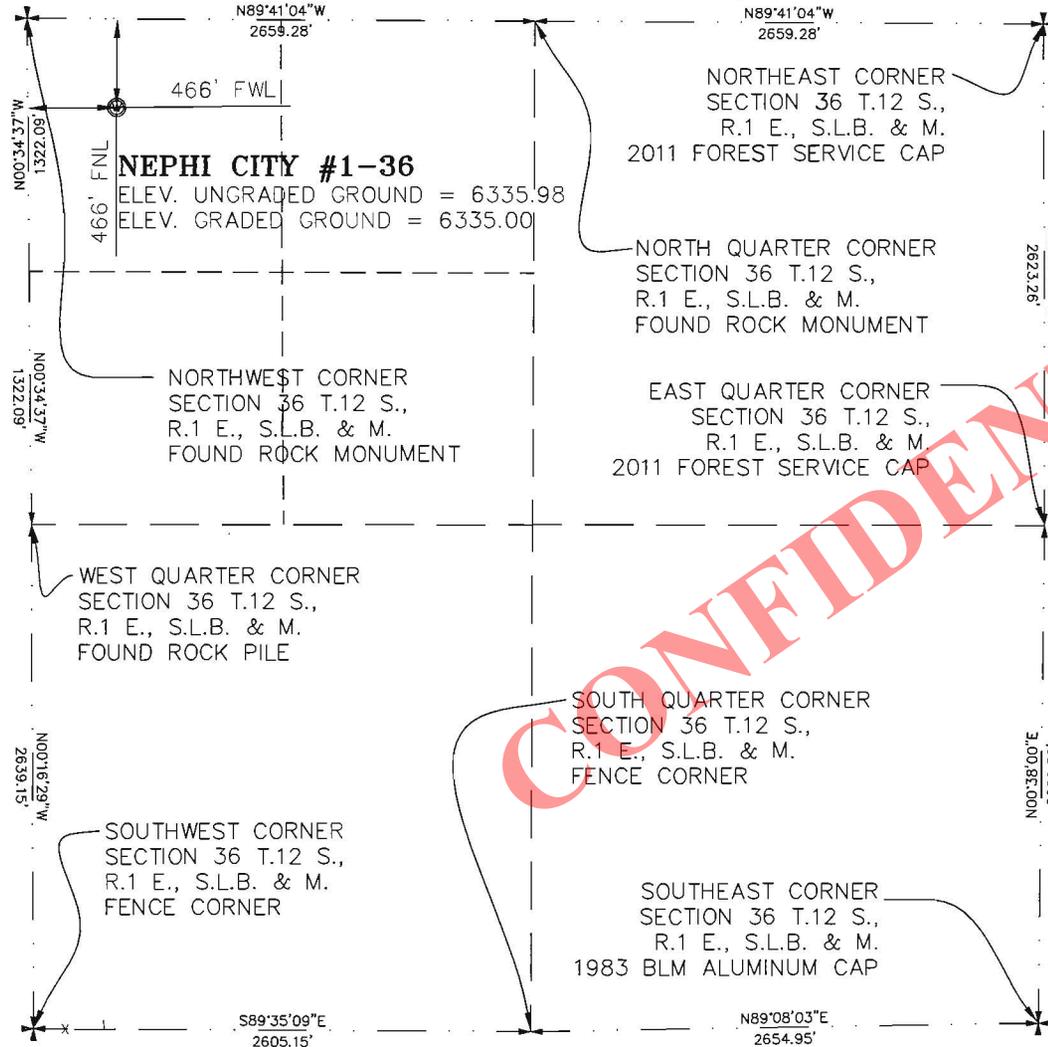
Cement calculated for 1500 ft of fillup @ 1.25 fillup factor. Final calculation to be determined. Displace cement w/ fresh water. Hang casing in slips.

**SCHEDULE**

Location preparation is presently scheduled to begin on or about September 1, 2013

Drilling operations are anticipated to begin immediately thereafter.

# SECTION 36 T.12 S., R.1 E., S.L.B. & M.



PROJECT  
**BISON OPERATING CO., LLC**  
 WELL LOCATION, LOCATED AS SHOWN  
 IN THE NW 1/4 OF THE NW 1/4 OF  
 SECTION 36 T.12 S., R.1 E., S.L.B. & M.  
 JUAB COUNTY, UTAH

### LEGEND



SECTION CORNER AS NOTED  
 QUARTER CORNER AS NOTED  
 PROPOSED WELL LOCATION

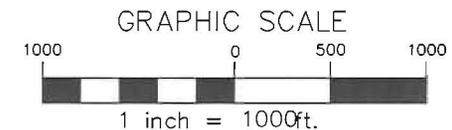
NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT  
 NEPHI CITY #1-36 WELL  
 LOCATED IN THE NW 1/4 OF THE NW 1/4 OF  
 SECTION 36 T.12 S., R.1 E., S.L.B. & M.  
 JUAB COUNTY, UTAH.

### BASIS OF ELEVATION

ELEVATION BASED ON OPUS SOLUTION CP-1  
 LOCATED IN THE NW 1/4 OF SECTION 36 T.12 S.,  
 R.1 E., S.L.B. & M.  
 ELEVATION USED 6336.57

### CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM  
 FIELD NOTES OF ACTUAL SURVEYS MADE BY ME UNDER  
 MY SUPERVISION, AND THAT THE SAME ARE TRUE AND  
 CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



### BASIS OF BEARING

BASIS OF BEARING USED WAS N89°41'04\"/>

WELL LATITUDE: 39°43'57.362\"/>

Savage Surveying, Inc.

1925 South Industrial Park Rd.  
 Richfield, UT 84701  
 Office: 435-896-8635  
 Fax: 435-896-0230



NEPHI CITY #1-36

BISON OPERATING CO., LLC

DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER
LOCATION	1" = 1000'	06/05/13	1304-009S	1
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:	
---	J.S.	R.W.S.	D.G.	



**Savage Surveying, Inc.**  
 1828 South Mountain Park Rd.  
 Riverton, UT 84065  
 Office: 801-466-8888  
 Fax: 801-466-8889



NEPHI CITY #1-36 VICINITY MAP FOR  
 BISON OPERATING CO., LLC

DESIGN BY	U.S.	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER
SURVEY BY	U.S.	1" = 2000'	MAY 2013	1304-0095	COVER
CHECKED BY	R.W.S.		DRAWN BY		
			R.W.S.		



<p><b>PRESSURE CONTROL SYSTEM SCHEMATIC</b></p> <p>Prepared by: EXACT Engineering, Inc Tulsa, OK (918) 599-9400</p> <p><b>2M (min) BOP Stack for 6-1/4" "production hole"</b></p>	<p>Operator:</p> <p><b>Bison Operating, LLC</b></p>
	<p>Well name and number</p> <p><b>Nephi City #1-36</b></p>

Max. anticipated surface pressure 850 psi

Annular B.O.P. (none)

B.O.P. 7-1/16" 2M (pipe rams)

Check Valve 2" 2M WP

Valve (none) WP

Valve 2" 2M WP

B.O.P. 7-1/16" 2M (blind rams)

Valve 2" 2M WP

Valve (none) WP

Kill Line Manifold

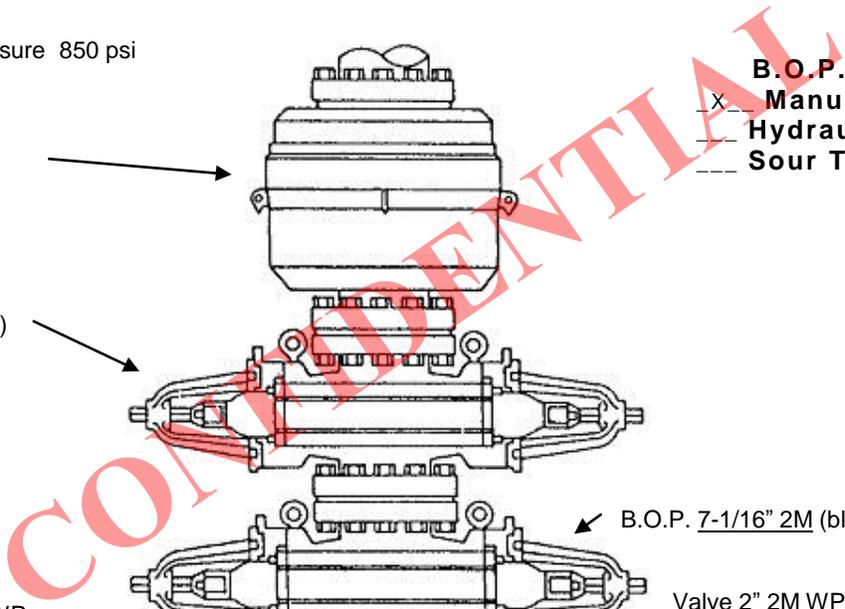
Manifold Line

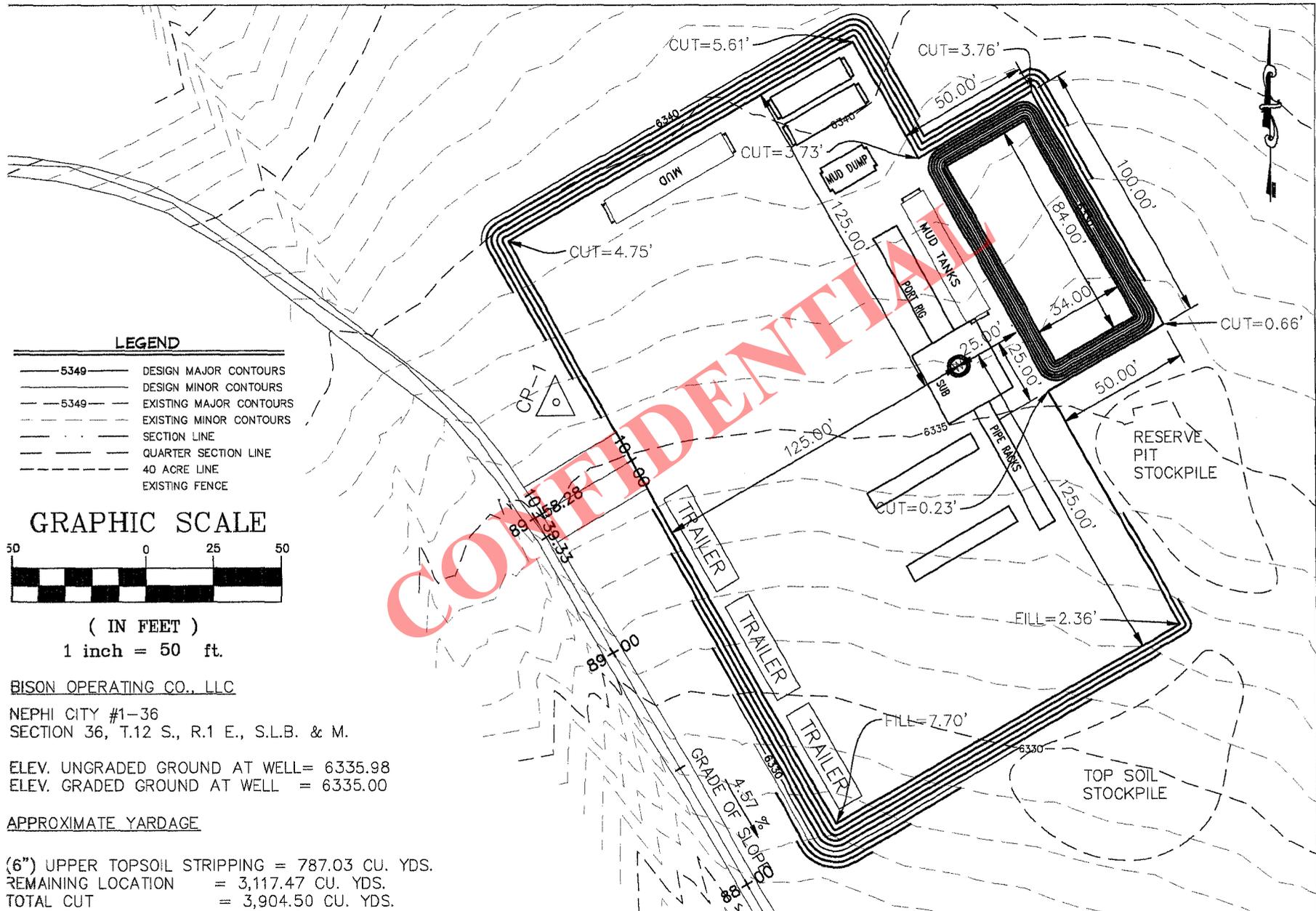
Ground level

Drilling Spool 7-1/16" 2M x 7-1/16" 2M w 2" min outlets w/ choke & kill valves as shown

Wellhead  
7" 2M screw type independent casing head w/ (2) 2" LPO w/ threaded adapter flange back to 7-1/16" 2M flange

**B.O.P.**  
 Manual  
 Hydraulic  
 Sour Trim





**LEGEND**

- 5349 — DESIGN MAJOR CONTOURS
- 5349 — DESIGN MINOR CONTOURS
- - - 5349 - - - EXISTING MAJOR CONTOURS
- - - - - EXISTING MINOR CONTOURS
- — — SECTION LINE
- - - - - QUARTER SECTION LINE
- - - - - 40 ACRE LINE
- - - - - EXISTING FENCE

**GRAPHIC SCALE**



( IN FEET )

1 inch = 50 ft.

**BISON OPERATING CO., LLC**

NEPHI CITY #1-36  
SECTION 36, T.12 S., R.1 E., S.L.B. & M.

ELEV. UNGRADED GROUND AT WELL= 6335.98  
ELEV. GRADED GROUND AT WELL = 6335.00

**APPROXIMATE YARDAGE**

(6") UPPER TOPSOIL STRIPPING = 787.03 CU. YDS.  
REMAINING LOCATION = 3,117.47 CU. YDS.  
TOTAL CUT = 3,904.50 CU. YDS.  
TOTAL FILL = 2,002.25 CU. YDS.  
\*FILL IS UNADJUSTED

TOTAL PIT CAPACITY WITH 2' FREEBOARD = 3,153 bbls  
TOTAL PIT VOLUME = 858.67 CU. YDS.

**Savage Surveying, Inc.**  
1925 Susan Woodruff Park Rd.  
Riverside, UT 84701  
Office: 435-890-6635  
Fax: 435-890-0229

NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DESIGN BY:	DWG NAME:	SCALE:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
---	1304-009S	1" = 50'	MAY 2013	1304-009S	PAD 1
SURVEY BY:	CHECKED BY:	DRAWN BY:			
J.S.	R.W.S.	R.W.S.			



Well Name	BISON OPERATING COMPANY, LLC Nephi City #1-36 43023500020000			
String	SURF	I1	PROD	
Casing Size(")	13.375	7.000	4.500	
Setting Depth (TVD)	200	850	2000	
Previous Shoe Setting Depth (TVD)	0	200	850	
Max Mud Weight (ppg)	8.3	8.4	8.4	
BOPE Proposed (psi)	500	1000	2000	
Casing Internal Yield (psi)	1730	4360	4790	
Operators Max Anticipated Pressure (psi)	866		8.3	

Calculations	SURF String	13.375	"
Max BHP (psi)	.052*Setting Depth*MW=	86	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	62	YES <input type="checkbox"/> rotating head, air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	42	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	42	NO <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		200	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

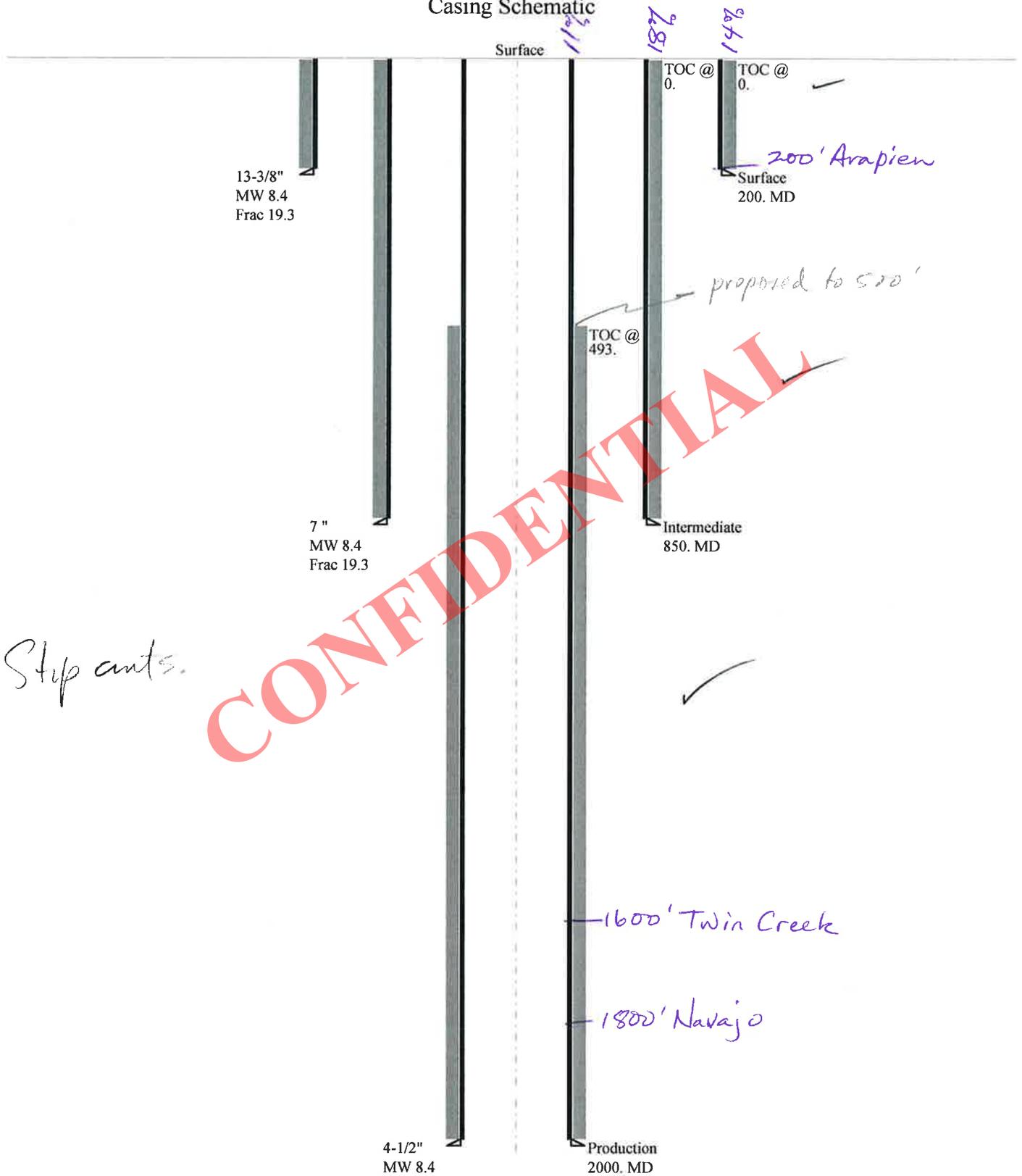
Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	371	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	269	YES <input type="checkbox"/> rotating head, air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	184	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	228	NO <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		850	psi
*Max Pressure Allowed @ Previous Casing Shoe=		200	psi *Assumes 1psi/ft frac gradient

Calculations	PROD String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	874	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	634	YES <input type="checkbox"/> 2M BOPE, blind & pipe rams, 2M choke &
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	434	YES <input type="checkbox"/> kill lines
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	621	YES <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		850	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

# 43023500020000 Nephi City #1-36

## Casing Schematic



Stop cuts.

Well name:	<b>43023500020000 Nephi City #1-36</b>	
Operator:	<b>BISON OPERATING COMPANY, LLC</b>	
String type:	Surface	Project ID: 43-023-50002
Location:	JUAB COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 77 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

**Burst:**

Design factor 1.00

Cement top: Surface

**Burst**

Max anticipated surface pressure: 176 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 200 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 175 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 850 ft  
Next mud weight: 8.400 ppg  
Next setting BHP: 371 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 200 ft  
Injection pressure: 200 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	200	13.375	48.00	H-40	ST&C	200	200	12.59	2480
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	87	740	8.479	200	1730	8.65	9.6	322	33.54 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801-538-5357  
FAX: 801-359-3940

Date: September 4, 2013  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 200 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43023500020000 Nephi City #1-36</b>		
Operator:	<b>BISON OPERATING COMPANY, LLC</b>		
String type:	Intermediate	Project ID:	43-023-50002
Location:	JUAB COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 86 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 850 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 633 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 735 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 743 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 2,000 ft  
 Next mud weight: 8.400 ppg  
 Next setting BHP: 873 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 850 ft  
 Injection pressure: 850 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	850	7	23.00	J-55	ST&C	850	850	6.25	4196
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	371	3270	8.816	735	4360	5.93	19.5	284	14.53 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801-538-5357  
 FAX: 801-359-3940

Date: September 4, 2013  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 850 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43023500020000 Nephi City #1-36</b>		
Operator:	<b>BISON OPERATING COMPANY, LLC</b>		
String type:	Production	Project ID:	43-023-50002
Location:	JUAB COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 102 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
 Cement top: 493 ft

**Burst**

Max anticipated surface pressure: 633 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 873 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

**Non-directional string.**

Tension is based on air weight.  
 Neutral point: 1,750 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2000	4.5	10.50	J-55	ST&C	2000	2000	3.927	4501
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	873	4010	4.595	873	4790	5.49	21	132	6.29 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: September 4, 2013  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** BISON OPERATING COMPANY, LLC  
**Well Name** Nephi City #1-36  
**API Number** 43023500020000      **APD No** 8375    **Field/Unit** WILDCAT  
**Location: 1/4,1/4** NWNW    **Sec** 36    **Tw** 12.0S    **Rng** 1.0E    466 FNL 466 FWL  
**GPS Coord (UTM)** 433209 4398370      **Surface Owner** Nephi City

### Participants

Ted Smith - DOGM, Mark Harison - Bison Resources Corp, Randy McKnight - Nephi City

### Regional/Local Setting & Topography

Rolling dry hills with natural grassland with Cedar cover. Location is on the SW corner of the base of the Nebo basin. Surrounding area is dry by mid June. Area is used for summer cattle grazing and fall hunting. Altitude at site approximately 6334'.

### Surface Use Plan

#### **Current Surface Use**

Grazing  
Recreational

#### **New Road**

Miles

0.25

#### **Well Pad**

Width 150 Length 250

#### **Src Const Material**

Onsite

#### **Surface Formation**

ALLU

#### **Ancillary Facilities**

### Waste Management Plan Adequate?

### Environmental Parameters

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

Flora around the drill location area consist of - Sagebrush, Cedar, Crested wheatgrass, and meadowgrass.

Fauna around the drill location area consist of - Deer, Rabbit, Elk, Cattle

The surrounding area of the well location is within 1.5 miles north of State Highway #132 and within 4.0 miles west of US Interstate I-15

#### **Soil Type and Characteristics**

Brown Dirt

#### **Erosion Issues** N

0.25 mile of two track access road that needs to be upgraded

#### **Sedimentation Issues** N

#### **Site Stability Issues** N

Location on a slight slope to the south

**Drainage Diversion Required? N****Berm Required? N****Erosion Sedimentation Control Required? N****Paleo Survey Run? N    Paleo Potential Observed? N    Cultural Survey Run? N    Cultural Resources? N****Reserve Pit**

<b>Site-Specific Factors</b>	<b>Site Ranking</b>
<b>Distance to Groundwater (feet)</b> >200	0
<b>Distance to Surface Water (feet)</b> >1000	0
<b>Dist. Nearest Municipal Well (ft)</b> >5280	0
<b>Distance to Other Wells (feet)</b> >1320	0
<b>Native Soil Type</b> Mod permeability	10
<b>Fluid Type</b> Fresh Water	5
<b>Drill Cuttings</b> Normal Rock	0
<b>Annual Precipitation (inches)</b> 10 to 20	5
<b>Affected Populations</b>	
<b>Presence Nearby Utility Conduits</b> Present	15
<b>Final Score</b>	35    3 Sensitivity Level

**Characteristics / Requirements**

Pit will be constructed so as not to leak, break, or discharge. The reserve pit will be lined with minimum of 16 mil plastic liner and fenced to keep wildlife out.

Pit will be 100' x 50' x 12' in size.

**Closed Loop Mud Required? N    Liner Required? Y    Liner Thickness 16    Pit Underlayment Required? N****Other Observations / Comments**

Bison will use a open lined pit program. All pit fluids will be hauled to an approved disposal site for waste management. Fresh water used for the drilling will be obtained through Nephi City Water Authority. Access road will use 1.1 mile of county road and 0.4 mile of a two track road that needs to be upgraded . US Interstate I-15 is 4.0 miles west of location and State highway #132 is 1.5 mile south of location. Location is in such a location that it can not be seen from the interstate or the state highway. There are 2 large powerlines 300 feet south of location running in the SE to NW direction. No other wells have been drilled within one mile of this proposed location. There is an agreement in place between landowner Nephi City and operator Bison. There is no local disagreement by landowners with this drilling program. Top soil removed from location is being placed on the southeast side of location. Presite photos taken on 08/19/2013 are located in well file.

Ted Smith  
**Evaluator**

8/19/2013  
**Date / Time**

# Application for Permit to Drill Statement of Basis

## Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
8375	43023500020000	LOCKED	OW	P	No
<b>Operator</b>	BISON OPERATING COMPANY, LLC		<b>Surface Owner-APD</b>	Nephi City	
<b>Well Name</b>	Nephi City #1-36		<b>Unit</b>		
<b>Field</b>	WILDCAT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 36 12S 1E S 466 FNL	466 FWL	GPS Coord		
	(UTM) 433217E	4398375N			

### Geologic Statement of Basis

This location area is characterized as being within the Basin & Range-Colorado Plateau physiographic transition zone. It is otherwise characterized as being within the Sevier Overthrust Belt. The proposed location is on fee mineral and fee surface approximately 2.5 miles east of Interstate 15 and the city of Nephi and approximately 1.5 miles north of State Highway 132, which located in the Salt Creek drainage. The well will be spud in the veneer of Quaternary alluvium covering the evaporite-rich Jurassic age Arapien Shale. The Bison Operating Co. proposes to use a mix of air/mist and fresh water based mud while drilling the surface casing from 0'-200'. Any water contained within the Arapien Shale is likely to be of poor quality, due to the high TDS from the large quantities of gypsum and halite present in the shale. Within a mile of the proposed well location no underground water rights are on file; however, three surface water rights are in the area. The Arapien Shale, Twin Creek Limestone, or Navajo Sandstone formations are unlikely to contain any high quality groundwater. The proposed mud, drilling, casing, and cementing programs should be sufficient to control and isolate the poor quality groundwater expected to be encountered at this location.

Ammon McDonald  
APD Evaluator

8/27/2013  
Date / Time

### Surface Statement of Basis

A presite was conducted at 08:00 am August 19th ,2013 This proposed location is 0.5 mile east of Quaking Aspen Canyon situated in the Bees Flat area. Access will use State road # 132 for approximately 2.5 mile, county road (frontage) for approximately 1.1 mile the remaining 0.4 miles on landowners Nephi City property who the Nephi City Manager attended the presite. At time of presite Nephi City has surface agreements with the landowner.

General topography in this area east of Nephi is small rolling hills sloped up to the Mt. Nebo of the Wasatch Range to the north and the San Pitch Mountains to the south. The Bees Flat area is suitable for grazing and wildlife habitat. These hills are steep and are accessed only from the west and south. The location is bordered by the Uinta National Forest to the south and north. There is one man made water pipeline 0.3 mile to the east that is fed by a spring located approximately 2.5 mile north. At the time of the presite this line is not in operation. Nephi City has a spring 1.5 mile to the southeast that the city uses as a water source. There is two large overhead power lines 300' south of the location.

Ted Smith  
Onsite Evaluator

8/19/2013  
Date / Time

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the northeast side of the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

**CONFIDENTIAL**

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/31/2013

API NO. ASSIGNED: 43023500020000

WELL NAME: Nephi City #1-36

OPERATOR: BISON OPERATING COMPANY, LLC (N4025)

PHONE NUMBER: 918 482-5450

CONTACT: Mark F. Harison

PROPOSED LOCATION: NWNW 36 120S 010E

Permit Tech Review: 

SURFACE: 0466 FNL 0466 FWL

Engineering Review: 

BOTTOM: 0466 FNL 0466 FWL

Geology Review: 

COUNTY: JUAB

LATITUDE: 39.73265

LONGITUDE: -111.77933

UTM SURF EASTINGS: 433217.00

NORTHINGS: 4398375.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

PROPOSED PRODUCING FORMATION(S): NAVAJO

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE - 48007359
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: purchase from Nephi City
- RDCC Review: 2013-09-18 00:00:00.0
- Fee Surface Agreement
- Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: R649-3-2
- Effective Date:
- Siting:
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhll  
8 - Cement to Surface -- 2 strings - hmacdonald  
12 - Cement Volume (3) - hmacdonald  
21 - RDCC - dmason  
23 - Spacing - dmason



GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*Lieutenant Governor*

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** Nephi City #1-36  
**API Well Number:** 43023500020000  
**Lease Number:** FEE  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 9/18/2013

### Issued to:

BISON OPERATING COMPANY, LLC, 8086 S. Yale Ave. Suite 119, Tulsa, OK 74136

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the NAVAJO Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 13 3/8" and 7" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 4 1/2" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 500' MD as indicated in the submitted drilling plan.

**Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website  
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program  
- contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar

month

- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "John Rogers", written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Nephi City #1-36
2. NAME OF OPERATOR: BISON OPERATING COMPANY, LLC	9. API NUMBER: 43023500020000
3. ADDRESS OF OPERATOR: 8086 S. Yale Ave. Suite 119 , Tulsa, OK, 74136	PHONE NUMBER: 918 482-5450 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0466 FNL 0846 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 12.0S Range: 01.0E Meridian: S	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: JUAB
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/1/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="location change"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This sundry is being submitted to request a change in the location of the Nephi City #1-36 (API 043-23-5002) to move the well 380 feet due east: 466' FNL, 846' FWL. The location will remain legal within the NWNW of the section, and the new GR will be 6,347' (12 feet higher). There will be no changes to the planned drilling program previously submitted. The nearest lease line will now be 672' from the well. The mineral and surface owner is the same. Attached is a new survey plat and new location drawings.

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Date:** April 03, 2014

**By:**

<b>NAME (PLEASE PRINT)</b> Mark F. Harison	<b>PHONE NUMBER</b> 918 482-5450	<b>TITLE</b> President, PIMC, Manager
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/25/2014	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices**

**Sundry Conditions of Approval Well Number 43023500020000**

**See attached Statement of Basis for conditions of approval.**

# Application for Permit to Drill

## Statement of Basis

4/3/2014

### Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Ownr</b>	<b>CBM</b>
8375	43-023-50002-00-00	LOCKED	OW	P	No
<b>Operator</b>	BISON OPERATING COMPANY, LLC	<b>Surface Owner-APD</b>	Nephi City		
<b>Well Name</b>	Nephi City #1-36		<b>Unit</b>		
<b>Field</b>	WILDCAT	<b>Type of Work</b>	DRILL		
<b>Location</b>	NWNW 36 12S 1E S 466 FNL 846 FWL GPS Coord (UTM) 433333E 4398373N				

#### Geologic Statement of Basis

This location area is characterized as being within the Basin & Range-Colorado Plateau physiographic transition zone. It is otherwise characterized as being within the Sevier Overthrust Belt. The proposed location is on fee mineral and fee surface approximately 2.5 miles east of Interstate 15 and the city of Nephi and approximately 1.5 miles north of State Highway 132, which located in the Salt Creek drainage. The well will be spud in the veneer of Quaternary alluvium covering the evaporite-rich Jurassic age Arapien Shale. The Bison Operating Co. proposes to use a mix of air/mist and fresh water based mud while drilling the surface casing from 0'-200'. Any water contained within the Arapien Shale is likely to be of poor quality, due to the high TDS from the large quantities of gypsum and halite present in the shale. Within a mile of the proposed well location no underground water rights are on file; however, three surface water rights are in the area. The Arapien Shale, Twin Creek Limestone, or Navajo Sandstone formations are unlikely to contain any high quality groundwater. The proposed mud, drilling, casing, and cementing programs should be sufficient to control and isolate the poor quality groundwater expected to be encountered at this location.

Ammon McDonald

8/27/2013

**APD Evaluator****Date / Time**

#### Surface Statement of Basis

A presite was conducted at 08:00 am August 19th ,2013 This proposed location is 0.5 mile east of Quaking Aspen Canyon situated in the Bees Flat area. Access will use State road # 132 for approximatly 2.5 mile, county road (frontage) for approximately 1.1 mile the remaining 0.4 miles on landowners Nephi City property who the Nephi City Manager attended the presite. At time of presite Nephi City has surface agreements with the landowner.

General topography in this area east of Nephi is small rolling hills sloped up to the Mt. Nebo of the Wasatch Range to the north and the San Pitch Mountains to the south. The Bees Flat area is suitable for grazing and wildlife habitat. These hills are steep and are accessed only from the west and south. The location is boarded by the Uinta National Forest to the south and north. There is one man made water pipeline 0.3 mile to the east that is fed by a spring located approximatly 2.5 mile north. At the time of the presite this line is not in operation. Nephi City has a spring 1.5 mile to the southeast that the city uses as a water source. There is two large overhead power lines 300' south of the location.

Ted Smith

8/19/2013

**Onsite Evaluator****Date / Time**

#### Conditions of Approval / Application for Permit to Drill

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the northeast side of the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

# Application for Permit to Drill

## Statement of Basis

4/3/2014

### Utah Division of Oil, Gas and Mining

Page 2

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Ownr</b>	<b>CBM</b>
9524	43-023-50002-00-00		OW	P	No
<b>Operator</b>	BISON OPERATING COMPANY, LLC		<b>Surface Owner-APD</b>		
<b>Well Name</b>	Nephi City #1-36		<b>Unit</b>		
<b>Field</b>	WILDCAT		<b>Type of Work</b>		
<b>Location</b>	NWNW 36 12S 1E S 466 FNL 846 FWL GPS Coord (UTM) 433333E 4398373N				

#### Geologic Statement of Basis

This location area is characterized as being within the Basin & Range-Colorado Plateau physiographic transition zone. It is otherwise characterized as being within the Sevier Overthrust Belt. The proposed location is on fee mineral and fee surface approximately 2.5 miles east of Interstate 15 and the city of Nephi and approximately 1.5 miles north of State Highway 132, which located in the Salt Creek drainage. The well will be spud in the veneer of Quaternary alluvium covering the evaporite-rich Jurassic age Arapien Shale. The Bison Operating Co. proposes to use a mix of air/mist and fresh water based mud while drilling the surface casing from 0'-200'. Any water contained within the Arapien Shale is likely to be of poor quality, due to the high TDS from the large quantities of gypsum and halite present in the shale. Within a mile of the proposed well location no underground water rights are on file; however, three surface water rights are in the area. One of the surface water rights is owned by Nephi City, which uses it for culinary drinking water. The Arapien Shale, Twin Creek Limestone, or Navajo Sandstone formations are unlikely to contain any high quality groundwater. The proposed mud, drilling, casing, and cementing programs should be sufficient to control and isolate the groundwater expected to be encountered at this location.

**APD Evaluator**

**Date / Time**

#### Surface Statement of Basis

A presite was conducted at 10:00 am March 27th ,2014 This proposed location is 0.5 mile east of Quaking Aspen Canyon situated in the Bees Flat area. Access will use State road # 132 for approximatly 2.5 mile, county road (frontage) for approximately 1.1 mile the remaining 0.2 miles on landowners Nephi City property who the Nephi City Manager attended the presite. At time of presite Nephi City has surface agreements with the landowner.

General topography in this area east of Nephi is small rolling hills sloped up to the Mt. Nebo of the Wasatch Range to the north and the San Pitch Mountains to the south. The Bees Flat area is suitable for grazing and wildlife habitat. These hills are steep and are accessed only from the west and south. The location is bordered by the Uinta National Forest to the south and north. There is one man made water pipeline 0.3 mile to the east that is fed by a spring located approximatly 2.5 mile north. At the time of the presite this line is not in operation. Nephi City has a spring 1.5 mile to the southeast that the city uses as a water source. There is two large overhead power lines 400' south of the location.

Ammon McDonald

3/27/2014

**Onsite Evaluator**

**Date / Time**

#### Conditions of Approval / Application for Permit to Drill

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location and fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the well location

---

**Application for Permit to Drill**  
**Statement of Basis**

4/3/2014

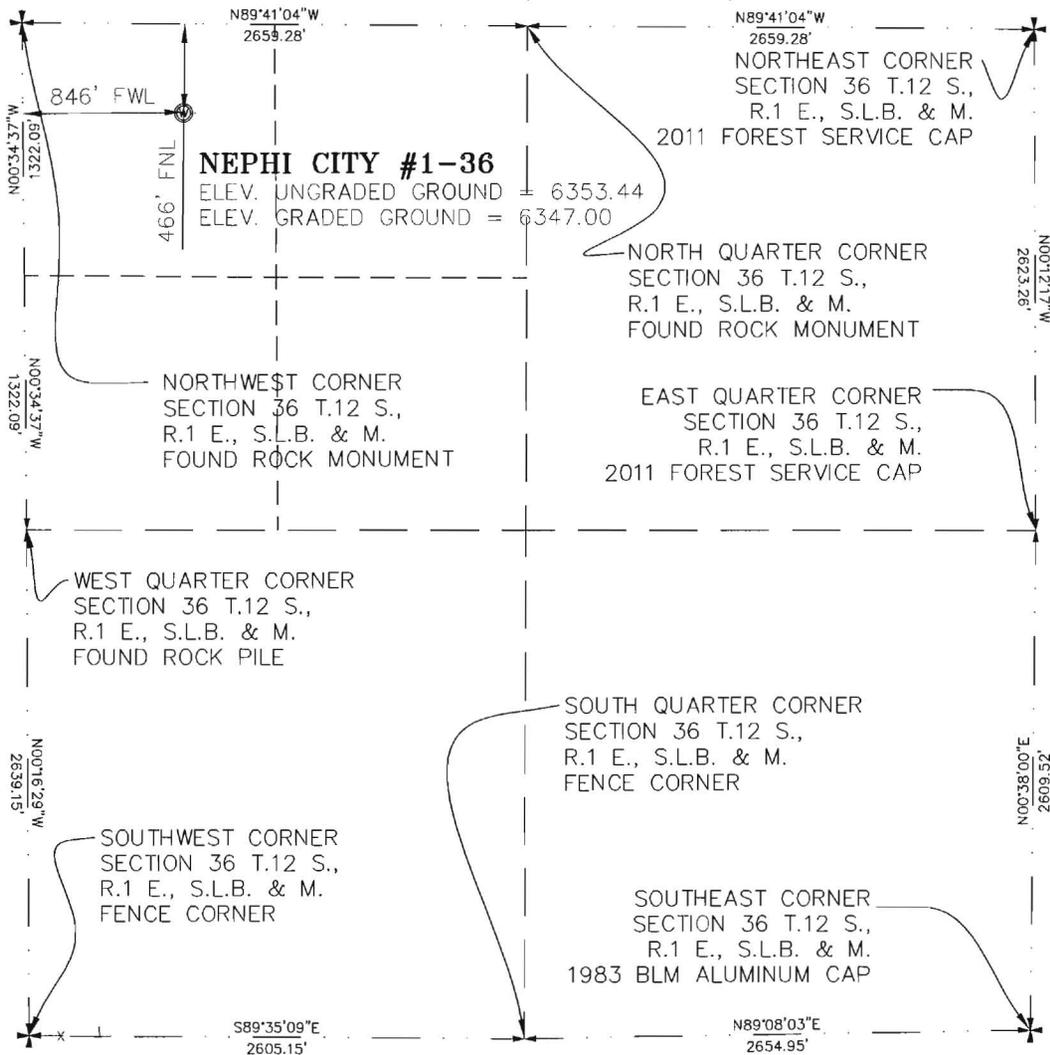
**Utah Division of Oil, Gas and Mining**

Page 3

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Surface	The Nephi City water supply spring shall be sampled and analyzed prior to any drilling activities.
Surface	Drainages adjacent to the proposed pad and upslope drainage shall be diverted around the location.

# SECTION 36 T.12 S., R.1 E., S.L.B. & M.



PROJECT  
**BISON OPERATING CO., LLC**  
 WELL LOCATION, LOCATED AS SHOWN  
 IN THE NW 1/4 OF THE NW 1/4 OF  
 SECTION 36 T.12 S., R.1 E., S.L.B. & M.  
 JUAB COUNTY, UTAH

### LEGEND

- SECTION CORNER AS NOTED
- QUARTER CORNER AS NOTED
- PROPOSED WELL LOCATION

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT  
 NEPHI CITY #1-36 WELL  
 LOCATED IN THE NW 1/4 OF THE NW 1/4 OF  
 SECTION 36 T.12 S., R.1 E., S.L.B. & M.  
 JUAB COUNTY, UTAH.

### BASIS OF ELEVATION

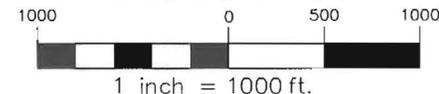
ELEVATION BASED ON OPUS SOLUTION CP-1  
 LOCATED IN THE NW 1/4 OF SECTION 36 T.12 S.,  
 R.1 E., S.L.B. & M.  
 ELEVATION USED 6336.57

### CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM  
 FIELD NOTES OF ACTUAL SURVEYS MADE BY ME UNDER  
 MY SUPERVISION, AND THAT THE SAME ARE TRUE AND  
 CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



### GRAPHIC SCALE



### BASIS OF BEARING

BASIS OF BEARING USED WAS N89°41'04"W BETWEEN THE NORTHWEST CORNER  
 AND THE NORTH 1/4 CORNERS OF SECTION 36 T.12 S., R.1 E., S.L.B. & M.

WELL LATITUDE: 39°43'57.353" OR 39.732598  
 WELL LONGITUDE: -111°46'41.025" OR -111.778063

Savage Surveying, Inc.

1925 South Industrial Park Rd.  
 Richfield, UT 84701  
 Office: 435-896-8635  
 Fax: 435-896-0200



NEPHI CITY #1-36

BISON OPERATING CO., LLC

DESIGN BY:	DWG NAME LOCATION	SCALE 1" = 1000'	DATE 03/10/14	PROJECT NUMBER 1401-006S	SHEET NUMBER 1
---	J.S.	R.W.S.	D.G.		



**LEGEND**

 ACCESS ROAD

**Savage Surveying, Inc.**

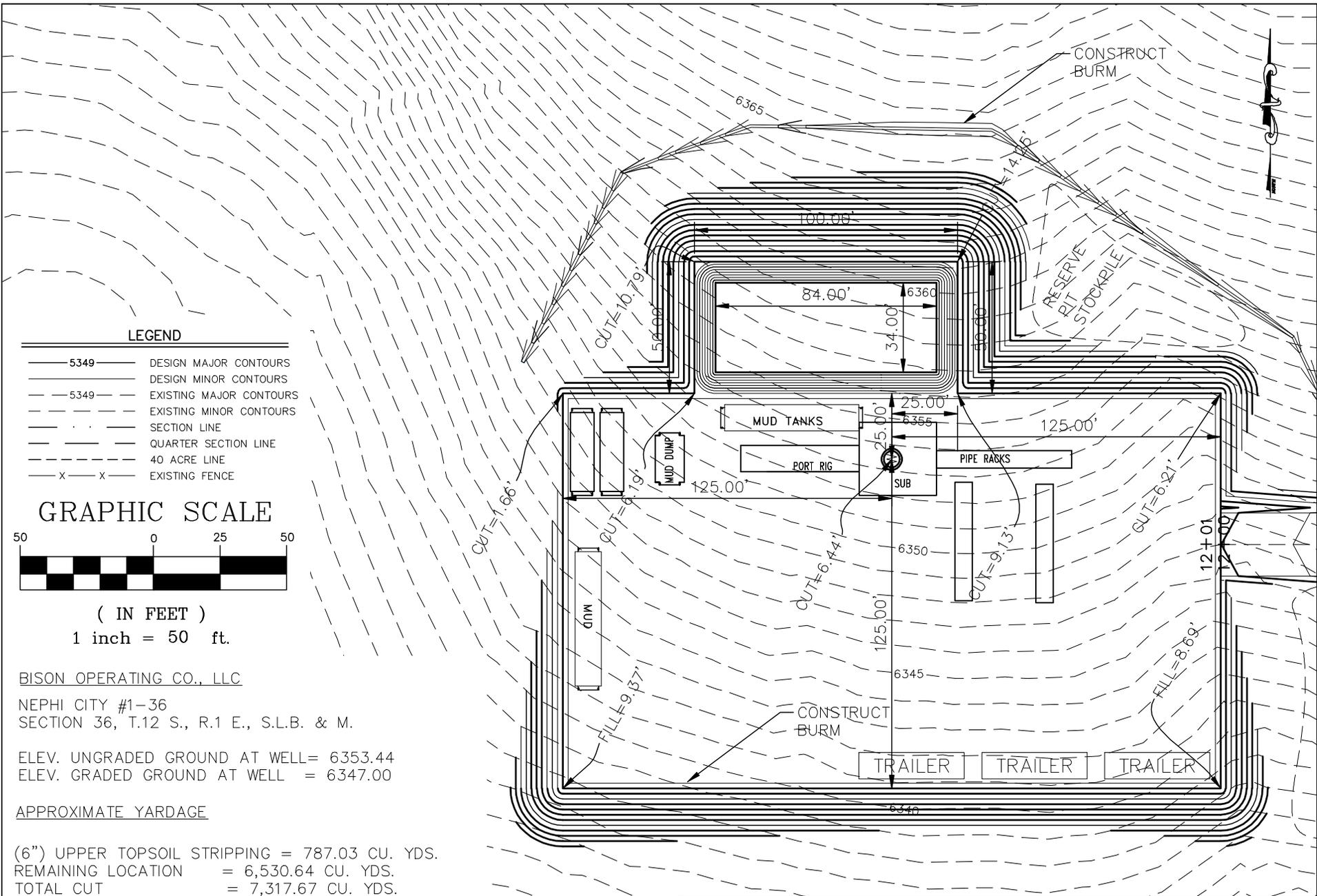
1825 South Industrial Park Rd.  
Richfield, UT 84701  
Office: 435-882-6635  
Fax: 435-881-0220



NEPHI CITY #1-36 VICINITY MAP FOR

BISON OPERATING CO., LLC

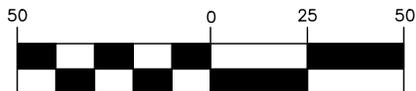
DESIGN BY:	DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER
---	1400-006S	1" = 2000'	03/17/14	1401-006S	COVER
	SURVEY BY:	CHECKED BY:	DRAWN BY:		
	J.S.	R.W.S.	R.W.S.		



**LEGEND**

- 5349 — DESIGN MAJOR CONTOURS
- — — DESIGN MINOR CONTOURS
- - - 5349 - - - EXISTING MAJOR CONTOURS
- - - - - EXISTING MINOR CONTOURS
- - - - - SECTION LINE
- - - - - QUARTER SECTION LINE
- - - - - 40 ACRE LINE
- x - x - EXISTING FENCE

**GRAPHIC SCALE**



( IN FEET )

1 inch = 50 ft.

BISON OPERATING CO., LLC

NEPHI CITY #1-36  
SECTION 36, T.12 S., R.1 E., S.L.B. & M.

ELEV. UNGRADED GROUND AT WELL= 6353.44  
ELEV. GRADED GROUND AT WELL = 6347.00

APPROXIMATE YARDAGE

(6") UPPER TOPSOIL STRIPPING = 787.03 CU. YDS.  
REMAINING LOCATION = 6,530.64 CU. YDS.  
TOTAL CUT = 7,317.67 CU. YDS.  
TOTAL FILL = 3,500.33 CU. YDS.  
\*FILL IS UNADJUSTED

TOTAL PIT CAPACITY WITH 2' FREEBOARD = 3,153 bbls  
TOTAL PIT VOLUME = 858.67 CU. YDS.

**Savage Surveying, Inc.**

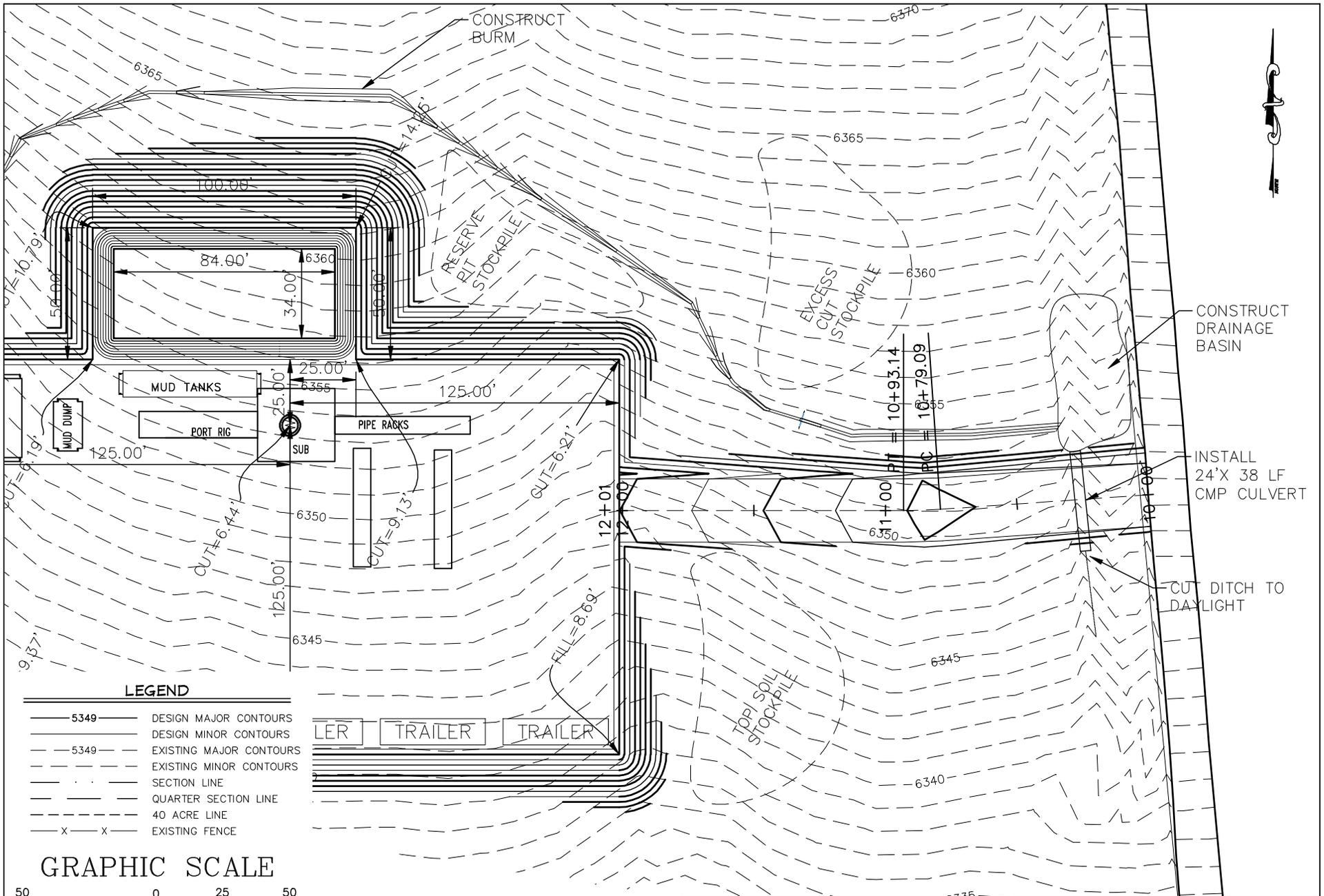
1825 South Industrial Park Rd.  
Richland, WY 82401  
Office: 307-342-6635  
Fax: 307-342-2220



NEPHI CITY #1-36 FOR

BISON OPERATING CO., LLC

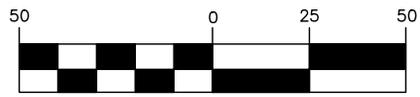
DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER
1401-006S	1" = 50'	03/17/14	1401-006S	PAD 1
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:	
	J.S.	R.W.S.	R.W.S.	



**LEGEND**

- 5349 ——— DESIGN MAJOR CONTOURS
- 5349 ——— DESIGN MINOR CONTOURS
- 5349 ——— EXISTING MAJOR CONTOURS
- 5349 ——— EXISTING MINOR CONTOURS
- · — · — SECTION LINE
- · — · — QUARTER SECTION LINE
- - - - - 40 ACRE LINE
- X - X - EXISTING FENCE

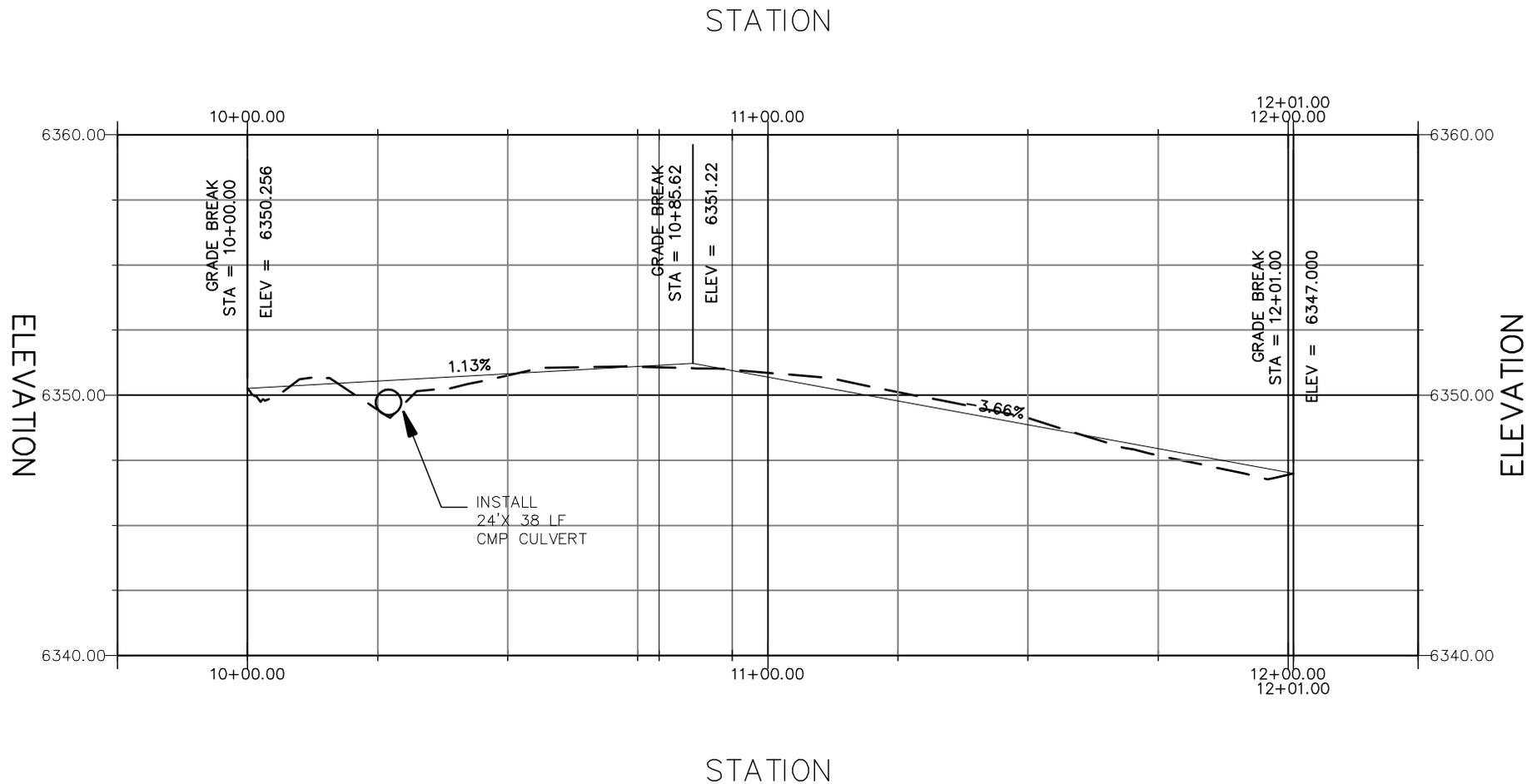
**GRAPHIC SCALE**



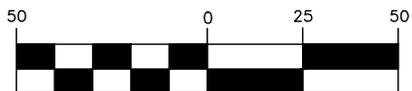
( IN FEET )  
1 inch = 50 ft.

**Savage Surveying, Inc.**  
 1825 South Industrial Park Rd.  
 Richfield, UT 84701  
 Office: 435-884-6635  
 Fax: 435-884-2220

NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER	
1401-006S	1" = 50'	03/17/14	1401-006S	PAD 2	
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:		
J.S.	J.S.	R.W.S.	R.W.S.		



GRAPHIC SCALE



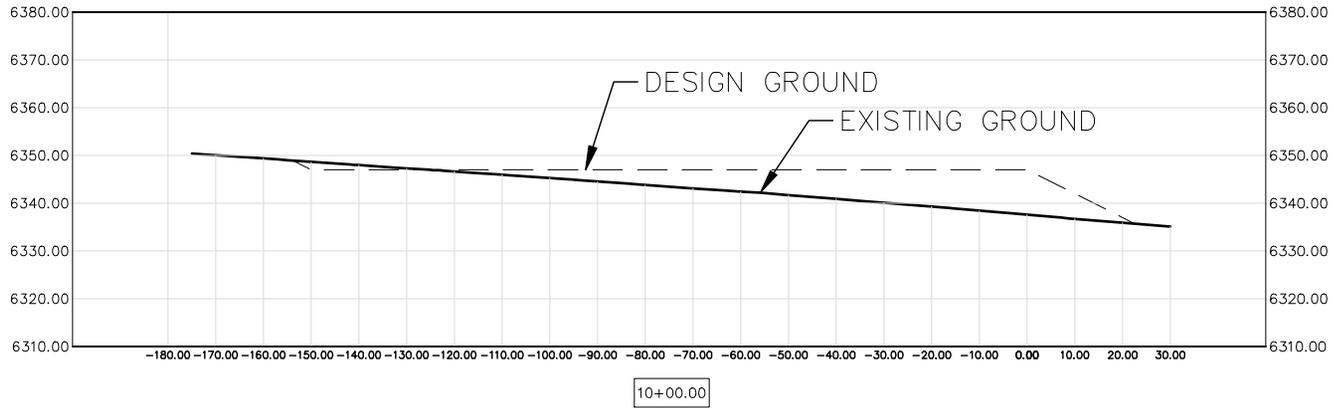
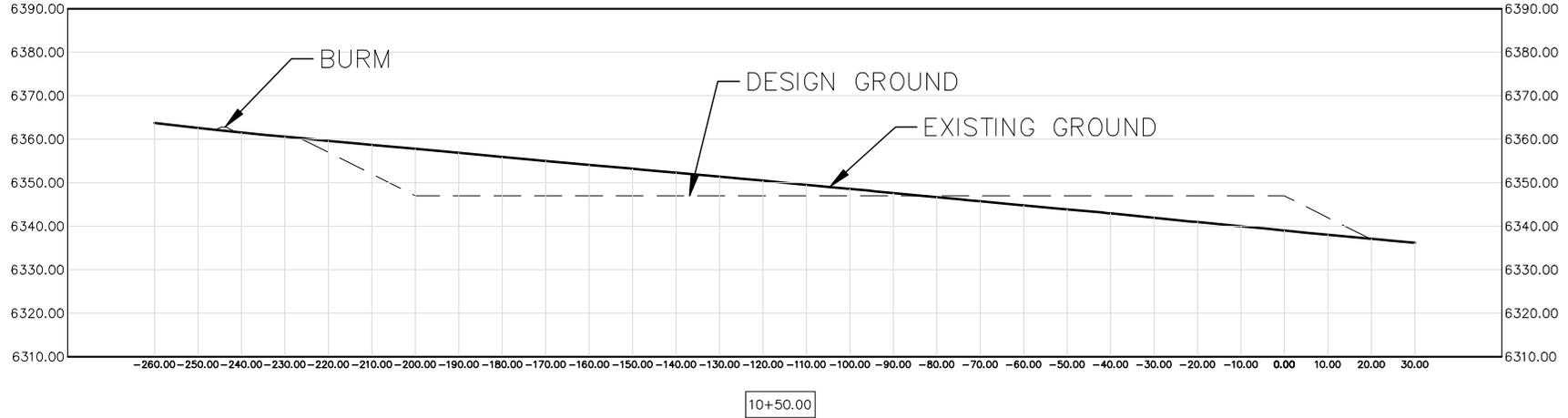
( IN FEET )  
1 inch = 50 ft.

**Savage Surveying, Inc.**

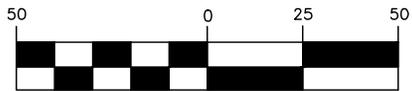
1825 South Industrial Park Rd.  
Richmond, LA 70471  
Office: 407-864-6635  
Fax: 407-864-6220



NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER	
1401-006S	1" = 50'	03/17/14	1401-006S	3	
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:		
---	J.S.	R.W.S.	R.W.S.		



GRAPHIC SCALE



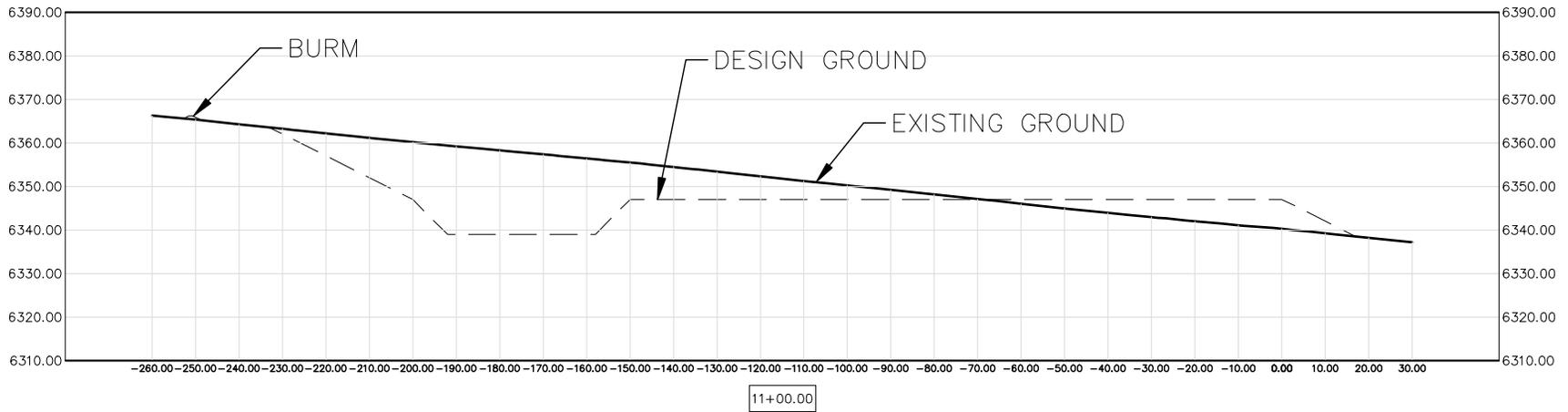
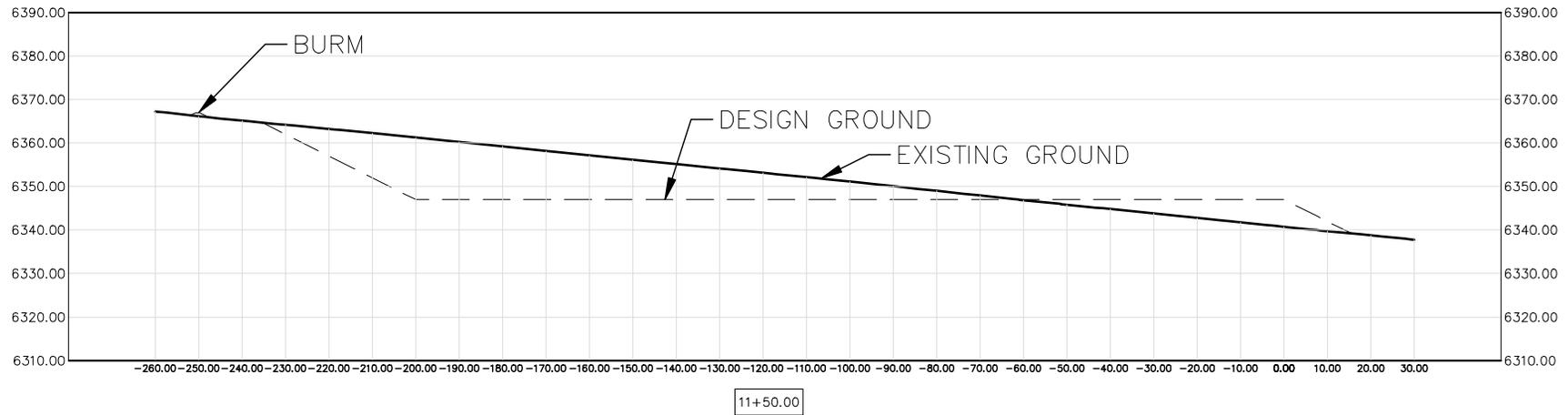
( IN FEET )  
1 inch = 50 ft.

**Savage Surveying, Inc.**

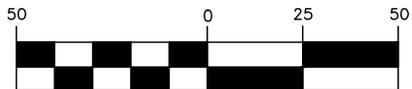
1825 South Industrial Park Rd.  
Richmond, LA 70471  
Office: 408-966-6635  
Fax: 408-966-6220



NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER	
1401-006S	1" = 50'	03/17/14	1401-006S	4	
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:		
---	J.S.	R.W.S.	R.W.S.		



GRAPHIC SCALE



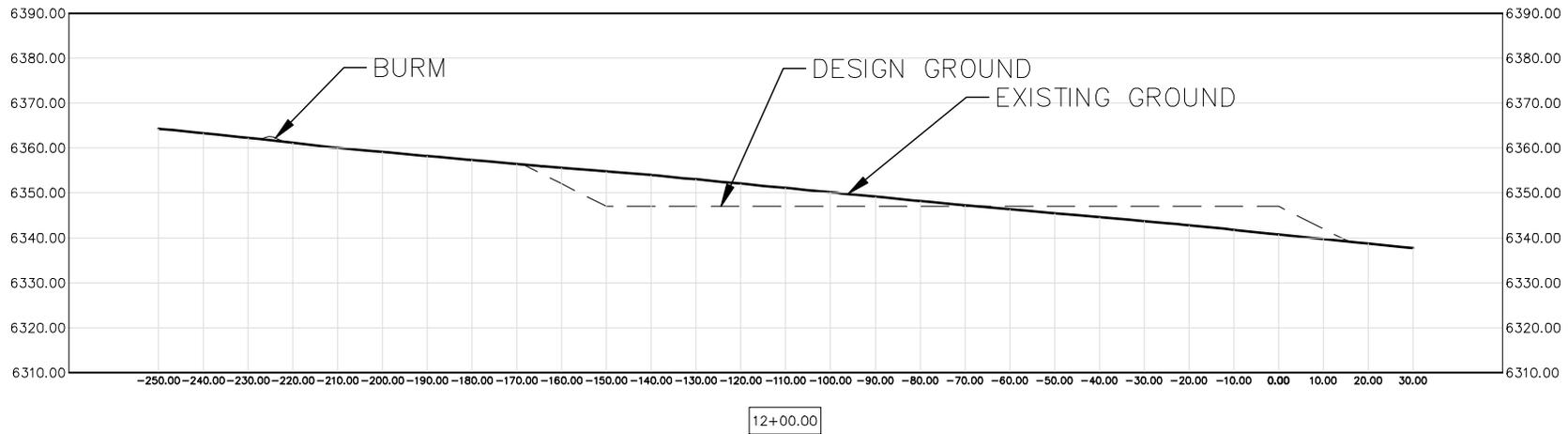
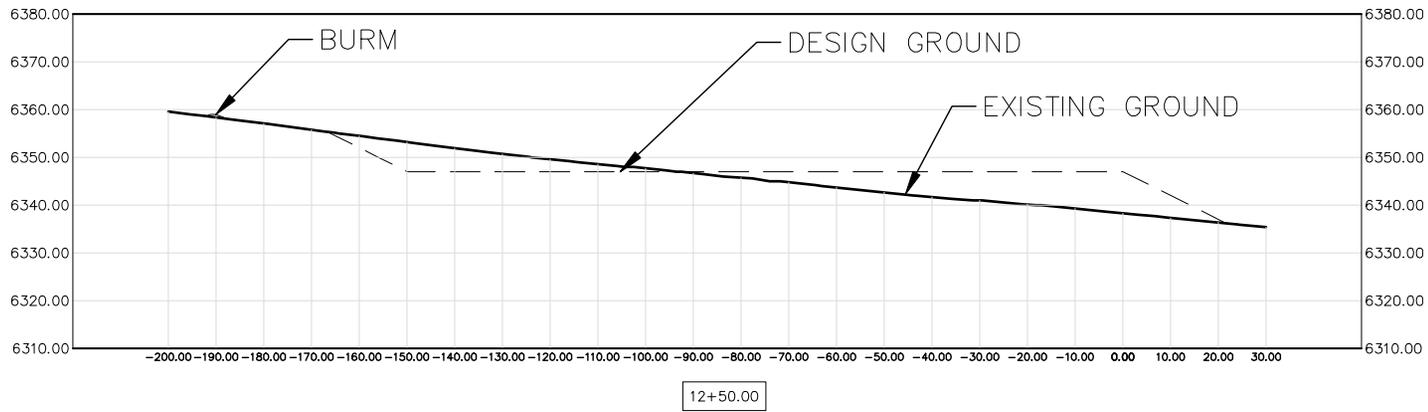
( IN FEET )  
1 inch = 50 ft.

**Savage Surveying, Inc.**

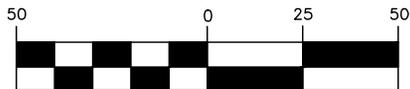
1825 South Industrial Park Rd.  
Richmond, VA 23171  
Office: 435-100-6635  
Fax: 435-694-2220



NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DESIGN BY:	DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER
---	1401-006S	1" = 50'	03/17/14	1401-006S	5
	SURVEY BY:	CHECKED BY:	DRAWN BY:		
	J.S.	R.W.S.	R.W.S.		



GRAPHIC SCALE



( IN FEET )  
1 inch = 50 ft.

**Savage Surveying, Inc.**

1825 South Industrial Park Rd.  
Richmond, VA 23261  
Office: 434-664-6635  
Fax: 434-664-2220



NEPHI CITY #1-36 FOR					
BISON OPERATING CO., LLC					
DWG NAME	SCALE	DATE	PROJECT NUMBER	SHEET NUMBER	
1401-006S	1" = 50'	03/17/14	1401-006S	6	
DESIGN BY:	SURVEY BY:	CHECKED BY:	DRAWN BY:		
---	J.S.	R.W.S.	R.W.S.		

CONFIDENTIAL CONFIDENTIAL

John Rogers <johnrogers@utah.gov>

---

**Spud Notice Nephi City #1-36, Juab County, 43-023-50002**

1 message

*NWNW 3-36 F123 ROIE FEE LEASE*

---

**Mark Harison** <mharison@valomet.com>

Fri, May 30, 2014 at 9:05 AM

To: johnrogers@utah.gov

Cc: Steve Hash <SteveHash@exactengineering.com>

Please be advised that the above-referenced well will spud on Monday, June 2.

If you have questions, please call me at 918-527-5710.

Mark Harison  
Bison Operating Company, LLC

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> FEE
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>1. TYPE OF WELL</b> Oil Well	<b>8. WELL NAME and NUMBER:</b> Nephi City #1-36	
<b>2. NAME OF OPERATOR:</b> BISON OPERATING COMPANY, LLC	<b>9. API NUMBER:</b> 43023500020000	
<b>3. ADDRESS OF OPERATOR:</b> 8086 S. Yale Ave. Suite 119 , Tulsa, OK, 74136	<b>PHONE NUMBER:</b> 918 482-5450 Ext	<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0466 FNL 0846 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 36 Township: 12.0S Range: 01.0E Meridian: S	<b>COUNTY:</b> JUAB	
	<b>STATE:</b> UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/18/2014  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
OTHER: <input type="text" value="Drilling Reports"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
See attached file for drilling reports		
<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 02, 2015</b>		
<b>NAME (PLEASE PRINT)</b> Mark F. Harison	<b>PHONE NUMBER</b> 918 482-5450	<b>TITLE</b> President, PIMC, Manager
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/1/2015	

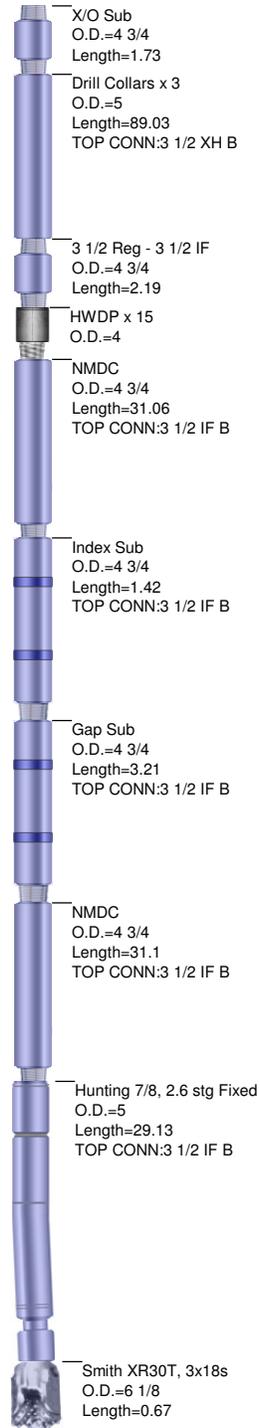


# Well Information

**BHA #** 1

<b>JOB NO.:</b>	UT141900	<b>FIELD:</b>	Wildcat
<b>Company:</b>	Bison Exploration	<b>Township:</b>	T12S
<b>LOCATION:</b>	Section 36, T12S, R1E	<b>SECTRANGE:</b>	Section 36
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36		R1E
<b>STATE:</b>	Utah		
<b>COUNTY:</b>	Juab	<b>BHA TYPE</b>	Steerable Assembly
<b>WELL NAME:</b>	Nephi City #1-36		

***Gyro run to 850', catch check shots to bottom of open hole (approx 1100') then stop build/drop without large DLS to TD of possibly 1750' to 2000'***





**JOB NO.:** UT141900  
**Company:** Bison Exploration  
**LOCATION:** Section 36, T12S, R1E  
**RIG NAME:** Leon Ross Drilling Rig #36  
**STATE:** Utah  
**COUNTY:** Country  
**WELL NAME:** Nephi City #1-36

**FIELD:** Wildcat  
**Township:** T12S  
**Range** R1E

MOTOR INFORMATION	
Desc: Hunting 7/8, 2.6 stg PDM Fixed @ 1.5	
Bent Hsg/Sub: 1.5 / 0	Bit to Bend: 5
Pad OD: 5 1/8	NB Stab:

### Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	16-Jun	Drilling	15:26	15:49	0.38	1085	1098	13	12	33.9	35	1000	275	675		10.08	244.29	2.24	
1	16-Jun	Sliding	15:56	16:18	0.37	1098	1108	10	12	27.3	35	1000	275	675	175L	9.86	245.47	4.22	
1	16-Jun	Drilling	16:18	16:52	0.57	1108	1128	20	12	35.3	35	1000	275	675		9.19	248.58	4.22	
1	16-Jun	Sliding	16:55	17:12	0.28	1128	1135	7	12	24.7	35	1000	275	675	180	8.95	249.75	5.62	
1	16-Jun	Drilling	17:12	17:47	0.58	1135	1158	23	12	39.4	35	1000	275	675		7.79	253.76	5.62	
1	16-Jun	Sliding	17:52	18:06	0.23	1158	1166	8	15	34.3	35	1000	275	700	180	7.41	254.98	4.64	
1	16-Jun	Drilling	18:06	18:29	0.38	1166	1188	22	12	57.4	35	1000	275	700		6.39	254.72	4.64	
1	16-Jun	Sliding	18:35	18:42	0.12	1188	1191	3	15	25.7	35	1000	275	700	170L	6.25	254.68	4.64	
1	16-Jun	Drilling	18:42	19:09	0.45	1191	1218	27	12	60.0	35	1000	275	700		5.55	254.57	2.33	
1	16-Jun	Drilling	19:11	19:42	0.52	1218	1248	30	12	58.1	35	1000	275	700		5.40	254.19	0.15	
1	16-Jun	Drilling	19:45	20:11	0.43	1248	1278	30	12	69.2	35	1000	275	700		5.80	253.69	1.67	
1	16-Jun	Drilling	20:14	20:53	0.65	1278	1308	30	16	46.2	35	1000	275	700		5.98	255.13	0.74	
1	16-Jun	Drilling	20:56	21:28	0.53	1308	1338	30	16	56.3	35	1100	275	750		6.00	256.86	0.59	
1	16-Jun	Drilling	21:31	22:08	0.62	1338	1368	30	16	48.6	35	1100	275	750		6.07	251.10	2.69	
1	16-Jun	Drilling	22:11	22:43	0.53	1368	1398	30	16	56.3	35	1100	275	750		6.18	249.76	0.34	
1	16-Jun	Drilling	22:45	23:55	1.17	1398	1428	30	16	25.7	35	1100	275	750		6.20	252.84	1.37	
1	17-Jun	Drilling	00:00	00:34	0.57	1428	1458	30	16	52.9	35	1100	275	750		6.28	253.44	0.34	
1	17-Jun	Drilling	00:37	01:11	0.57	1428	1488	60	16	105.9	35	1100	275	750		6.22	252.28	0.61	
1	17-Jun	Drilling	01:15	01:41	0.43	1488	1518	30	16	69.2	35	1100	275	750		5.88	249.47	1.74	
1	17-Jun	Drilling	01:44	02:14	0.50	1518	1548	30	16	60.0	35	1200	275	800		5.48	251.17	1.65	
1	17-Jun	Drilling	02:16	02:45	0.48	1548	1578	30	16	62.1	35	1200	275	800		5.96	255.24	2.72	
1	17-Jun	Drilling	02:48	03:22	0.57	1578	1608	30	16	52.9	35	1200	275	800		6.10	256.00	0.00	
1	17-Jun	Drilling	03:25	03:58	0.55	1608	1638	30	16	54.5	35	1200	275	800		6.02	256.88	0.51	
1	17-Jun	Drilling	04:00	04:34	0.57	1638	1668	30	16	52.9	35	1200	275	800		5.92	252.95	1.83	
1	17-Jun	Drilling	04:37	05:07	0.50	1668	1698	30	16	60.0	35	1200	275	800		5.90	251.58	0.14	
1	17-Jun	Drilling	05:10	05:41	0.52	1698	1728	30	16	58.1	35	1200	275	800		5.50	252.07	1.68	

**Slide Report for BHA # 1**

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	17-Jun	Drilling	05:44	06:27	0.72	1728	1758	30	16	41.9	35	1200	275	800		5.72	249.28	1.78	
1	17-Jun	Drilling	06:30	07:00	0.50	1758	1788	30	16	60.0	35	1200	275	800		0.00	0.00	0.00	
1	17-Jun	Drilling	07:05	07:45	0.67	1788	1818	30	16	45.0	35	1200	275	800		0.00	0.00	0.00	
1	17-Jun	Drilling	07:48	09:00	1.20	1818	1850	32	16	26.7	35	1200	275	800		0.00	0.00	0.00	

**Total Drilled:** 795 **Avg. Total ROP:** 49.23

**DEPTH% - TIME %**

**Total Rotary Drilled:** 767 **Avg. Rotary ROP:** 50.63 **Percent Rotary:** 96.48 - 93.81

**Total Drilled Sliding:** 28 **Avg. Slide ROP:** 28.00 **Percent Slide:** 3.52 - 6.19



<b>JOB NO.:</b>	UT141900
<b>Company:</b>	Bison Exploration
<b>LOCATION:</b>	Section 36, T12S, R1E
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36
<b>STATE:</b>	Utah
<b>COUNTY:</b>	USA
<b>WELL NAME:</b>	Nephi City #1-36

<b>FIELD:</b>	Wildcat	
<b>Township:</b>	T12S	
<b>SECT RANGE:</b>	Section 36	R1E

## Tool Utilization Report

### Bits

#### RA0652 - Smith XR30T, 3x18s

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for RA0652

&lt;&lt; Summary for Bits

### DC

#### HP 475-S08 - NMDC

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for HP 475-S08

#### HP 475-S14 - NMDC

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for HP 475-S14

#### Rig - Drill Collars x 3

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00
3	45.45	3.00	51.45	51.45	87.55	2,385.00

&lt;&lt; Summary for Rig

&lt;&lt; Summary for DC

### Motors

#### 168 - Hunting 7/8, 2.6 stg Fixed

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for 168

## Tool Utilization Report

1	15.15	1.00	17.15	17.15	29.18	795.00	<< Summary for Motors
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### MWD

#### 11241-8-6 - Gap Sub

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for 11241-8-6

#### FIS 402 - Index Sub

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00
2	30.30	2.00	34.30	34.30	58.37	1,590.00

&lt;&lt; Summary for FIS 402

&lt;&lt; Summary for MWD

### Other

#### Rig - HWDP x 15

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for Rig

&lt;&lt; Summary for Other

### X-Overs

#### Rig - X/O Sub

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00

&lt;&lt; Summary for Rig

#### SFS 5916 - 3 1/2 Reg - 3 1/2 IF

BHA #	Rotary Hours	Slide Hours	Total Hours	Circ. Hours	Below Rotary	Amount Drilled
1	15.15	1.00	17.15	17.15	29.18	795.00
1	15.15	1.00	17.15	17.15	29.18	795.00
2	30.30	2.00	34.30	34.30	58.37	1,590.00

&lt;&lt; Summary for SFS 5916

&lt;&lt; Summary for X-Overs



<b>JOB NO.:</b>	UT141900	<b>FIELD:</b>	Wildcat
<b>Company:</b>	Bison Exploration	<b>Township:</b>	T12S
<b>LOCATION:</b>	Section 36, T12S, R1E	<b>SECT\ RANGE:</b>	Section 36 R1E
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36		
<b>STATE:</b>	Utah		
<b>COUNTY:</b>	Juab		
<b>WELL NAME:</b>	Nephi City #1-36		

## Field Estimate

### COST BREAKDOWN

## Battery

Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
16-Jun-2014	6/16/14	Alkaline Battery	ITEM				
			1	\$575.00	\$0.00	\$0.00	\$575.00
<b>Comment:</b>							
<b>Total for Battery</b>							<b>\$575.00</b>

## DAY RATE

Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
15-Jun-2014	6/15/14	EM-Directional Package - Standby	DAY				
			1	\$4,800.00	\$0.00	\$0.00	\$4,800.00
<b>Comment:</b>							
16-Jun-2014	6/16/14	EM-Directional Package	DAY				
			1	\$6,950.00	\$0.00	\$0.00	\$6,950.00
<b>Comment:</b>							
17-Jun-2014	6/17/14	EM-Directional Package	DAY				
			1	\$6,950.00	\$0.00	\$0.00	\$6,950.00
<b>Comment:</b>							
<b>Total for DAY RATE</b>							<b>\$18,700.00</b>

## Demobilization Charges

Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
17-Jun-2014	6/17/14	Mobilization/Hotshot Charge	ITEM				
			1	\$1,155.00	\$0.00	\$0.00	\$1,155.00
<b>Comment:</b>							
<b>Total for Demobilization Charges</b>							<b>\$1,155.00</b>

## LIH (Lost in Hole)

Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
16-Jun-2014	6/16/14	PDM #168	BELOW ROTARY HOURS				
			15.5	\$20.00	\$0.00	\$0.00	\$310.00
<b>Comment:</b>							

COST BREAKDOWN							
17-Jun-2014	6/17/14	PDM # 168	BELOW ROTARY HOURS		\$0.00	\$0.00	\$320.00
			16	\$20.00			
Comment:							
Total for LIH (Lost in Hole)						\$630.00	
<b>Lodging</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
15-Jun-2014	6/15/14	Personnel Lodging: Dan, Sam	DAY		\$0.00	\$0.00	\$250.00
			2	\$125.00			
Comment:							
16-Jun-2014	6/16/14	Personnel Lodging: Dan, Sam	DAY		\$0.00	\$0.00	\$250.00
			2	\$125.00			
Comment:							
17-Jun-2014	6/17/14	Personnel Lodging: Sam	DAY		\$0.00	\$0.00	\$125.00
			1	\$125.00			
Comment:							
Total for Lodging						\$625.00	
<b>Meal allowance</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
15-Jun-2014	6/15/14	Personnel Subsistence: Dan, Sam	DAY		\$0.00	\$0.00	\$170.00
			2	\$85.00			
Comment:							
16-Jun-2014	6/16/14	Personnel Subsistence: Dan, Sam	DAY		\$0.00	\$0.00	\$170.00
			2	\$85.00			
Comment:							
17-Jun-2014	6/17/14	Personal Subsistence: Sam	DAY		\$0.00	\$0.00	\$85.00
			1	\$85.00			
Comment:							
Total for Meal allowance						\$425.00	
<b>Mileage</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
15-Jun-2014	6/15/14	Personnel Mileage: Dan, Sam	MILEAGE		\$0.00	\$0.00	\$574.00
			328	\$1.75			
Comment:							
Total for Mileage						\$574.00	
<b>Mobilization Charges</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			

COST BREAKDOWN							
15-Jun-2014	6/15/14	Mobilization/Hotshot Charge	ITEM		\$0.00	\$0.00	\$1,155.00
			1	\$1,155.00			
Comment:							
Total for Mobilization Charges							\$1,155.00
<b>Motors and Turbines</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
16-Jun-2014	6/16/14	Motor Inspection & Repair	ITEM		\$0.00	\$0.00	\$3,245.00
			1	\$3,245.00			
Comment:							
Total for Motors and Turbines							\$3,245.00
<b>MWD1</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
16-Jun-2014	6/16/14	MWD Inspection & Repair	ITEM		\$0.00	\$0.00	\$550.00
			1	\$550.00			
Comment:							
17-Jun-2014	6/17/14	EM Tool Insurance	DAY		\$0.00	\$0.00	\$260.00
			1	\$260.00			
Comment:							
Total for MWD1							\$810.00
<b>MWD2</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
16-Jun-2014	6/16/14	EM Tool	DAY		\$0.00	\$0.00	\$260.00
			1	\$260.00			
Comment:							
Total for MWD2							\$260.00
<b>PERSONNEL</b>							
Charge Date	IDENTIFIER	Description	Type of Units		Minimum Charge	Maximum Charge	Price
			Units	Price/Unit			
15-Jun-2014	6/15/14	Additional DD - Standby	DAY		\$0.00	\$0.00	\$780.00
			1	\$780.00			
Comment:							
16-Jun-2014	6/16/14	Additional DD	DAY		\$0.00	\$0.00	\$1,300.00
			1	\$1,300.00			
Comment:							
Total for PERSONNEL							\$2,080.00

**COST BREAKDOWN**

**Total for Invoice:** **\$30,234.00**

**Oil Company Representative:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directional Company Reprntative:** \_\_\_\_\_ **Date:** \_\_\_\_\_



# Well Information

**BHA #** 1

**JOB NO.:** UT141900      **FIELD:** Wildcat  
**Company:** Bison Exploration      **Township:** T12S  
**LOCATION:** Section 36, T12S, R1E      **SECT. RANGE:** Section 36      R1E  
**RIG NAME:** Leon Ross Drilling Rig #36      **Lead DD:** Sam Walker  
**STATE:** Utah      **Co. Man:** Steve Hash  
**COUNTY:** Juab      **BHA TYPE:** Steerable Assembly  
**WELL NAME:** Nephi City #1-36

## BHA Summary Information

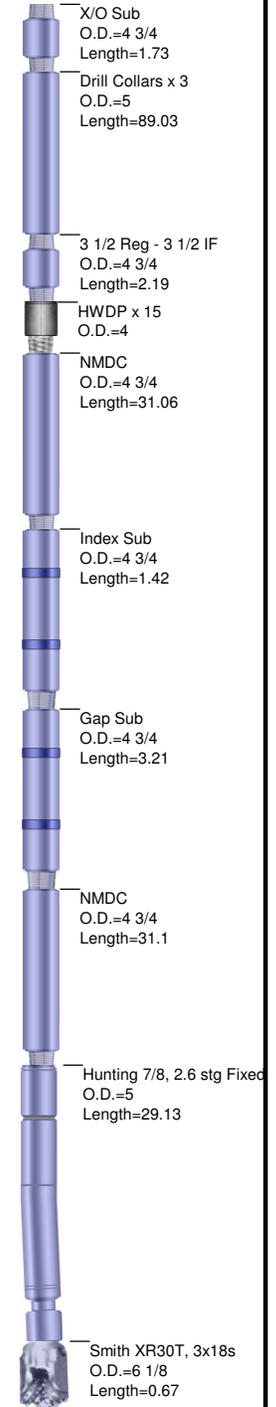
<b>TIME IN - OUT</b>		<b>Rotary Hours</b>	15.15	<b>Start Depth</b>	1085.00	<b>RPM</b>	<b>Flow Rate</b>
<b>Start Time</b>	<b>End Time</b>	<b>Circ Hrs Tot/Only</b>	17.15 / 1.00	<b>End Depth</b>	1850.00	<b>Range</b>	
16-Jun-14 @ 10:59	17-Jun-14 @ 16:10	<b>Slide Hours</b>	1.00	<b>Percent Rotary:</b>	96.48	35 -35	275 -275
		<b>Below Rotary Hrs.</b>	29.18	<b>Percent Slide:</b>	3.52		
<b>Total Drilled:</b>		795.00	<b>Avg. Total ROP:</b>	49.23	<b>Incl. Azimuth</b>		
<b>Total Rotary Drilled:</b>		767.00	<b>Avg. Rotary ROP:</b>	50.63	<b>IN</b>	<b>OUT</b>	<b>IN</b> <b>OUT</b>
<b>Total Drilled Sliding:</b>		28.00	<b>Avg. Slide ROP:</b>	28.00	.0	.0	.00      .00
<b>SPP</b>	675 -800	<b>Weights</b>	SO 29 -32	<b>PU</b>	34 -50	<b>RAB</b>	31 -35 <b>Reason POOH</b> TD

Bit Data				MOTOR DATA				Mud Data					
SMITH	Smith XR30T, 3x18s			Hunting 7/8, 2.6 stg PDM Fixed @ 1.5				Type	Water/Polymer				
<b>Type Bit</b>	ROCK			Model:	Dirt Dart			WT	8.4	GAS	0	Solids	0
TFA	0.745			MFG.	Hunting Performance			Vis	39	SAND	0	T °	0
<b>JETS</b>	18	18	18	Bend °	1.5	Stator/Rotor	7/8	PV	0	PH	0	Chlor	0
	0	0	0	Bit to Bend	5	Motor Diff		YP	0	WL	0	Oil %	0
<b>Bit Coding</b>	IADC#			Rev/GAL	0.26			BHT ° 0					
IR	OR	DL	Loc	BS	G	ODL	NB Stab	PUMPS		PUMP1		PUMP1	
1	1		A	1			Rotor Jet	NAME					
							0	Model					
<b>Bit Drop:</b>	105 PSI @ 275 GPM			Sensor Offsets				Type					
<b>Comments</b>	Sensor	54	Sonic	0			Liner	.00      .00					
	Gamma	0	DNCS	850			Stroke	.00      .00					
	Restiv	0	GYRO	0			Efficiency	.00      .00					

Gyro run to 850', catch check shots to bottom of open hole (approx 1100') then stop build/drop without large DLS to TD of possibly 1750' to 2000'

## BHA Detail

#	Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn
1	Smith XR30T, 3x18s	RA0652		6 1/8	0.67	0.67	3 1/2 REGP
2	Hunting 7/8, 2.6 stg Fixed	168		5	29.13	29.80	3 1/2 IFB
3	NMDC	HP 475-S08	2 3/4	4 3/4	31.10	60.90	3 1/2 IFB
4	Gap Sub	11241-8-6	2 3/4	4 3/4	3.21	64.11	3 1/2 IFB
5	Index Sub	FIS 402	2 5/8	4 3/4	1.42	65.53	3 1/2 IFB
6	NMDC	HP 475-S14	2 5/8	4 3/4	31.06	96.59	3 1/2 IFB
7	HWDP x 15	Rig		4	459.24	555.83	3 1/2 IFB
8	3 1/2 Reg - 3 1/2 IF	SFS 5916	1 1/2	4 3/4	2.19	558.02	3 1/2 REGP
9	Drill Collars x 3	Rig		5	89.03	647.05	3 1/2 XHB
10	X/O Sub	Rig	2	4 3/4	1.73	648.78	2 7/8 IFP







<b>JOB NO.:</b>	UT141900	<b>Report Time:</b>	2400	2 of 3
<b>Company:</b>	Bison Exploration	<b>API JOB #</b>	4302350002	
<b>LOCATION:</b>	Section 36, T12S, R1E	<b>WORK ORDER#</b>	UT141900	
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36	<b>FIELD:</b>	Wildcat	
<b>STATE:</b>	Utah	<b>Township:</b>	T12S	
<b>COUNTY:</b>	Juab	<b>SECTRANGE:</b>	Section 36	R1E
<b>WELL NAME:</b>	Nephi City #1-36			

From Monday, June 16, 2014 at 0000 to Monday, June 16, 2014 at 2400

DRILLING SUMMARY				Drilling Parameters										
Start Depth	1085.00	Rotary Hours	6.82	WOB	16	Pick UP	40	Slack Off	32	SPM				
End Depth	1428.00	Circulating Hours	0.00	RAB	33	SPP	750	FlowRate	0 - 275	90				
Total Drilled:	343.00	Avg. Total ROP:	43.88	Mud Data										
Total Rotary Drilled:	315.00	Avg. Rotary ROP:	46.21	Type	Water/Polymer			PV	0	SOLID	0			
Total Drilled Sliding:	28.00	Avg. Slide ROP:	28.00	Weight	8.4	GAS	0	YP	0	BHT°	0			
Slide Hours:	1.00	Percent Rotary:	91.84	Viscosity	39	SAND	0	PH	0	Flow T°	0			
Below Rotary Hrs.	15.97	Percent Slide:	8.16	Chlorides	0	WL	0			Oil %	0			
PERSONNEL				CASING				BHA						
Lead Directional :	Dan Chamblee			Size	Lb/ft	Set Depth		BHA # 1:Smith XR30T, 3x18s, Hunting 7/8, 2.6 stg Fixed, NMDC, Gap Sub, Index Sub, NMDC, HWDP x 15, 3 1/2 Reg - 3 1/2 IF, Drill Collars x 3, X/O Sub,						
Second Directional :	Sam Walker			7	23	882								
MWD Operator1	Sam Walker			Signature:										
MWD Operator2														
Directional Company:	PayZone Directional													
Geologist:														
Company Man:	Steve Hash													
Incl. In:	5.07	Azm. In:	228.47	Incl. Out:	0	Azm. Out:	0							

### GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
16-Jun-14	00:00	08:02	8.03	0	0	Standby	Standby
16-Jun-14	08:02	10:59	2.95	0	96	Change BHA	Change BHA
16-Jun-14	10:59	14:30	3.52	96	978	TIH	TIH
16-Jun-14	14:30	14:34	0.07	978	978	Survey & Conn.	Survey & Conn.@924' Inc 6.77° Azm 227.97°
16-Jun-14	14:34	15:02	0.47	978	1038	TIH	TIH
16-Jun-14	15:02	15:06	0.07	1038	1038	Survey & Conn.	Survey & Conn.@984' Inc 8.48° Azm 233.86°
16-Jun-14	15:06	15:26	0.33	1038	1085	TIH	TIH
16-Jun-14	15:26	15:49	0.38	1085	1098	Drilling	Rotate
16-Jun-14	15:49	15:56	0.12	1098	1098	Survey & Conn.	Survey & Conn.@1044' Inc 10.37° Azm 239.35°
16-Jun-14	15:56	16:18	0.37	1098	1108	Sliding	Slide @ 175L
16-Jun-14	16:18	16:52	0.57	1108	1128	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)
16-Jun-14	16:52	16:55	0.05	1128	1128	Survey & Conn.	Survey & Conn.@1074' Inc 10.42° Azm 241.94°
16-Jun-14	16:55	17:12	0.28	1128	1135	Sliding	Sliding - (WOB:12;GPM :275;TFO:180))
16-Jun-14	17:12	17:47	0.58	1135	1158	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)
16-Jun-14	17:47	17:52	0.08	1158	1158	Survey & Conn.	Survey & Conn.@1104' Inc 10° Azm 244.9°
16-Jun-14	17:52	18:06	0.23	1158	1166	Sliding	Sliding - (WOB:15;GPM :275;TFO:180))
16-Jun-14	18:06	18:29	0.38	1166	1188	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
16-Jun-14	18:29	18:35	0.10	1188	1188	Survey & Conn.	Survey & Conn.@1134' Inc 9° Azm 249.6°
16-Jun-14	18:35	18:42	0.12	1188	1191	Sliding	Sliding - (WOB:15;GPM :275;TFO:170L))
16-Jun-14	18:42	19:09	0.45	1191	1218	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)
16-Jun-14	19:09	19:11	0.03	1218	1218	Survey & Conn.	Survey & Conn.@1164' Inc 7.5° Azm 255°
16-Jun-14	19:11	19:42	0.52	1218	1248	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)
16-Jun-14	19:42	19:45	0.05	1248	1248	Survey & Conn.	Survey & Conn.@1194' Inc 6.11° Azm 254.64°
16-Jun-14	19:45	20:11	0.43	1248	1278	Drilling	Drilling - (WOB:12;GPM :275;RPM:35)
16-Jun-14	20:11	20:14	0.05	1278	1278	Survey & Conn.	Survey & Conn.@1224' Inc 5.41° Azm 254.55°
16-Jun-14	20:14	20:53	0.65	1278	1308	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
16-Jun-14	20:53	20:56	0.05	1308	1308	Survey & Conn.	Survey & Conn.@1254' Inc 5.4° Azm 254.1°
16-Jun-14	20:56	21:28	0.53	1308	1338	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
16-Jun-14	21:28	21:31	0.05	1338	1338	Survey & Conn.	Survey & Conn.@1284' Inc 5.9° Azm 253.6°
16-Jun-14	21:31	22:08	0.62	1338	1368	Drilling	368Drilling - (WOB:16;GPM :275;RPM:35)
16-Jun-14	22:08	22:11	0.05	1368	1368	Survey & Conn.	Survey & Conn.@1314' Inc 6° Azm 255.5°
16-Jun-14	22:11	22:43	0.53	1368	1398	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
16-Jun-14	22:43	22:45	0.03	1398	1398	Survey & Conn.	Survey & Conn.@1344' Inc 6° Azm 257.2°
16-Jun-14	22:45	23:55	1.17	1398	1428	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
16-Jun-14	23:55	24:00	0.08	1428	1428	Survey & Conn.	Survey & Conn.@1374' Inc 6.1° Azm 249.6°



<b>JOB NO.:</b>	UT141900	<b>Report Time:</b>	2400	3 of 3
<b>Company:</b>	Bison Exploration	<b>API JOB #</b>	4302350002	
<b>LOCATION:</b>	Section 36, T12S, R1E	<b>WORK ORDER#</b>	UT141900	
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36	<b>FIELD:</b>	Wildcat	
<b>STATE:</b>	Utah	<b>Township:</b>	T12S	
<b>COUNTY:</b>	Juab	<b>SECTRANGE:</b>	Section 36	R1E
<b>WELL NAME:</b>	Nephi City #1-36			

From Tuesday, June 17, 2014 at 0000 to Tuesday, June 17, 2014 at 2400

DRILLING SUMMARY				Drilling Parameters																	
Start Depth	1085.00	Rotary Hours	6.82	WOB	16	Pick UP	50	Slack Off	32	SPM											
End Depth	1428.00	Circulating Hours	0.00	RAB	35	SPP	800	FlowRate	275 - 275	90											
Total Drilled:	343.00	Avg. Total ROP:	43.88	Mud Data																	
Total Rotary Drilled:	315.00	Avg. Rotary ROP:	46.21	Type	Water/Polymer			PV	0	SOLID	0										
Total Drilled Sliding:	28.00	Avg. Slide ROP:	28.00	Weight	8.4	GAS	0	YP	0	BHT°	0										
Slide Hours:	1.00	Percent Rotary:	91.84	Viscosity	39	SAND	0	PH	0	Flow T°	0										
Below Rotary Hrs.	15.97	Percent Slide:	8.16	Chlorides	0	WL	0			Oil %	0										
PERSONNEL				CASING			BHA														
Lead Directional :	Sam Walker			Size	Lb/ft	Set Depth	BHA # 1:Smith XR30T, 3x18s, Hunting 7/8, 2.6 stg Fixed, NMDC, Gap Sub, Index Sub, NMDC, HWDP x 15, 3 1/2 Reg - 3 1/2 IF, Drill Collars x 3, X/O Sub,														
Second Directional :				7	23	882															
MWD Operator1	Sam Walker			Signature:																	
MWD Operator2																					
Directional Company:	PayZone Directional																				
Geologist:																					
Company Man:	Steve Hash																				
Incl. In:	0	Azm. In:	0	Incl. Out:	0	Azm. Out:	0														

### GENERAL COMMENT

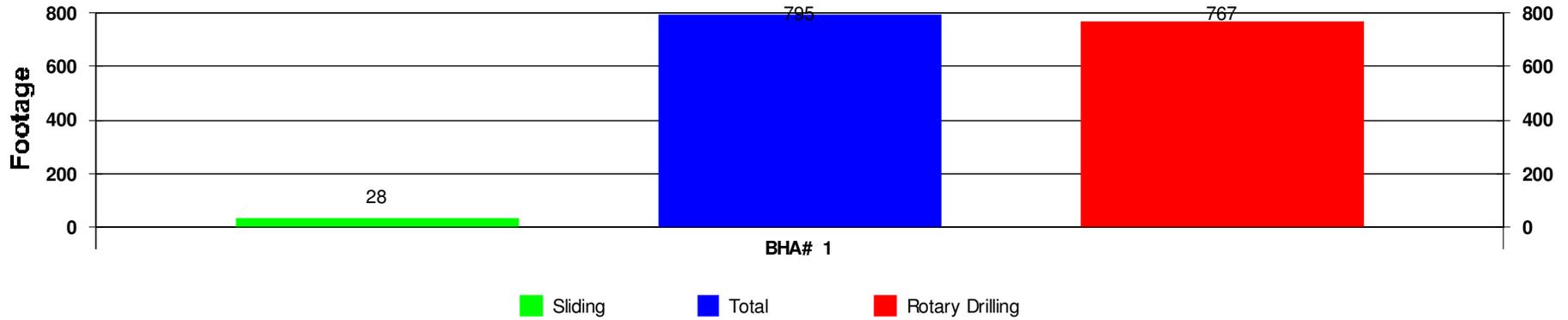
Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
17-Jun-14	00:00	00:34	0.57	1428	1458	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	00:34	00:37	0.05	1428	1428	Survey & Conn.	Survey & Conn.@1374' Inc 6.1° Azm 249.6°
17-Jun-14	00:37	01:11	0.57	1428	1488	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	01:11	01:15	0.07	1488	1488	Survey & Conn.	Survey & Conn.@1434' Inc 6.2° Azm 253.6°
17-Jun-14	01:15	01:41	0.43	1488	1518	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	01:41	01:44	0.05	1518	1518	Survey & Conn.	Survey & Conn.@1464' Inc 6.3° Azm 253.4°
17-Jun-14	01:44	02:14	0.50	1518	1548	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	02:14	02:16	0.03	1548	1548	Survey & Conn.	Survey & Conn.@1494' Inc 6.2° Azm 252°
17-Jun-14	02:16	02:45	0.48	1548	1578	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	02:45	02:48	0.05	1578	1578	Survey & Conn.	Survey & Conn.@1524' Inc 5.8° Azm 248.8°
17-Jun-14	02:48	03:22	0.57	1578	1608	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	03:22	03:25	0.05	1608	1608	Survey & Conn.	Survey & Conn.@1554' Inc 5.4° Azm 251.8°
17-Jun-14	03:25	03:58	0.55	1608	1638	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	03:58	04:00	0.03	1638	1638	Survey & Conn.	Survey & Conn.@1584' Inc 6.1° Azm 256°
17-Jun-14	04:00	04:34	0.57	1638	1668	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	04:34	04:37	0.05	1668	1668	Survey & Conn.	Survey & Conn.@1614' Inc 6.1° Azm 256°
17-Jun-14	04:37	05:07	0.50	1668	1698	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
17-Jun-14	05:07	05:10	0.05	1698	1698	Survey & Conn.	Survey & Conn.@1644' Inc 6° Azm 257.1°
17-Jun-14	05:10	05:41	0.52	1698	1728	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	05:41	05:44	0.05	1728	1728	Survey & Conn.	Survey & Conn.@1674' Inc 5.9° Azm 251.9°
17-Jun-14	05:44	06:27	0.72	1728	1758	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	06:27	06:30	0.05	1758	1758	Survey & Conn.	Survey & Conn.@1704' Inc 5.9° Azm 251.5°
17-Jun-14	06:30	07:00	0.50	1758	1788	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	07:00	07:05	0.08	1788	1788	Survey & Conn.	Survey & Conn.@1734' Inc 5.4° Azm 252.22°
17-Jun-14	07:05	07:45	0.67	1788	1818	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	07:45	07:48	0.05	1818	1818	Survey & Conn.	Survey & Conn.@1764' Inc 5.8° Azm 248.6°
17-Jun-14	07:48	09:00	1.20	1818	1850	Drilling	Drilling - (WOB:16;GPM :275;RPM:35)
17-Jun-14	09:00	10:00	1.00	1850	1850	Circulating	Circulating
17-Jun-14	10:00	15:30	5.50	1850	1850	POOH	POOH
17-Jun-14	15:30	16:10	0.67	1850	1850	Other	Other/Laydown BHA

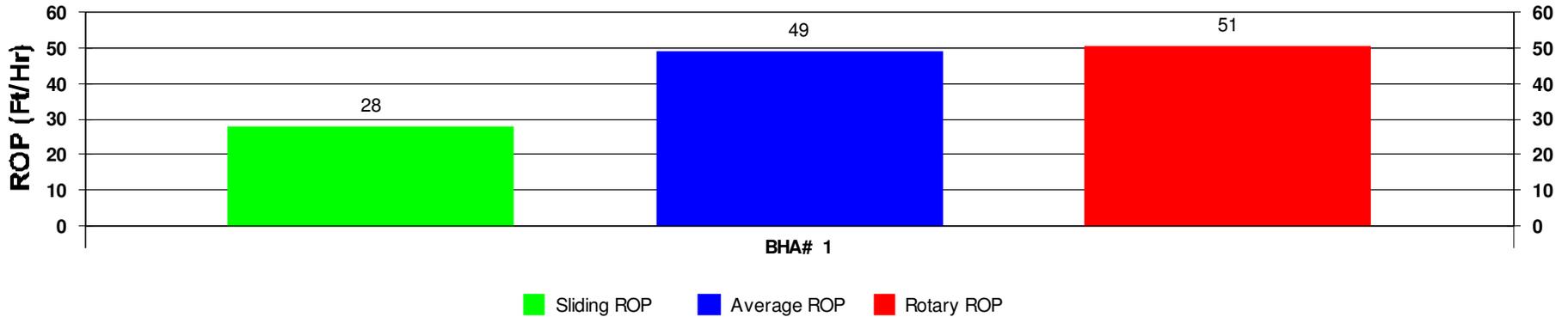


<b>JOB NO.:</b>	UT141900	<b>FIELD:</b>	Wildcat	
<b>Company:</b>	Bison Exploration	<b>Township:</b>	T12S	
<b>LOCATION:</b>	Section 36, T12S, R1E	<b>SECT\ RANGE:</b>	Section 36	R1E
<b>RIG NAME:</b>	Leon Ross Drilling Rig #36	<b>COMMENT</b>		
<b>STATE:</b>	Utah			
<b>COUNTY:</b>	Juab			
<b>WELL NAME:</b>	Nephi City #1-36			

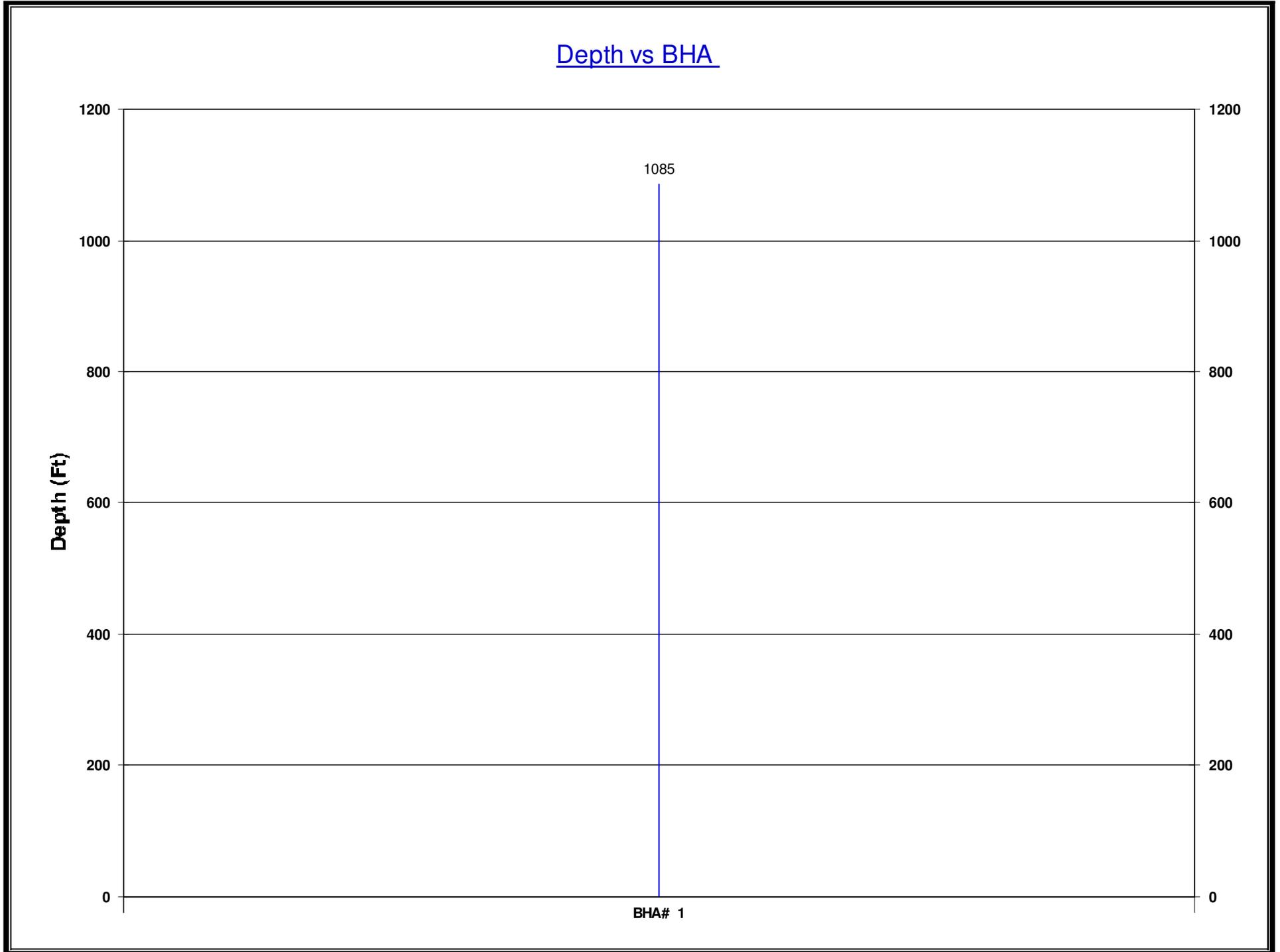
Footage Drilled with BHA



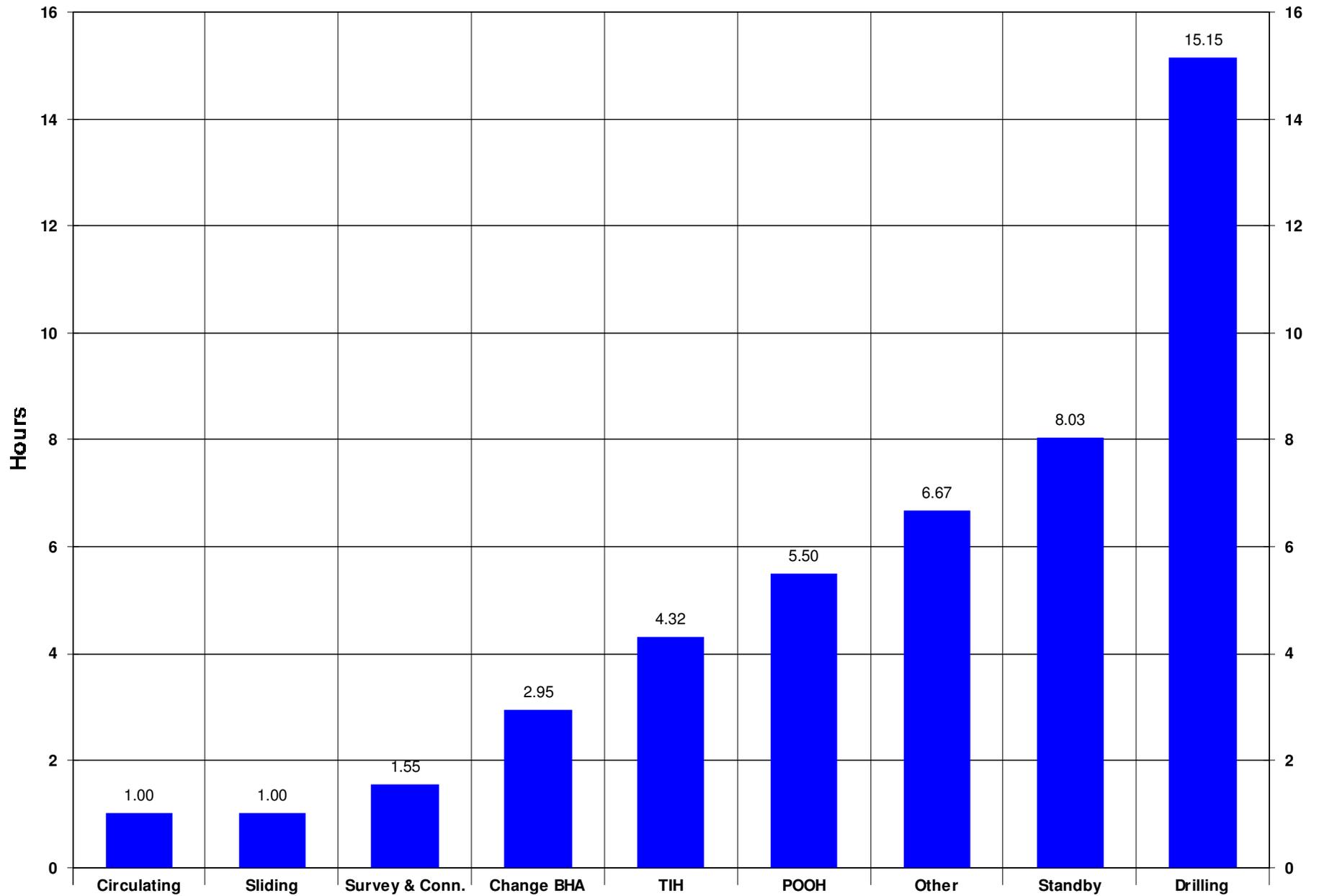
ROP vs BHA



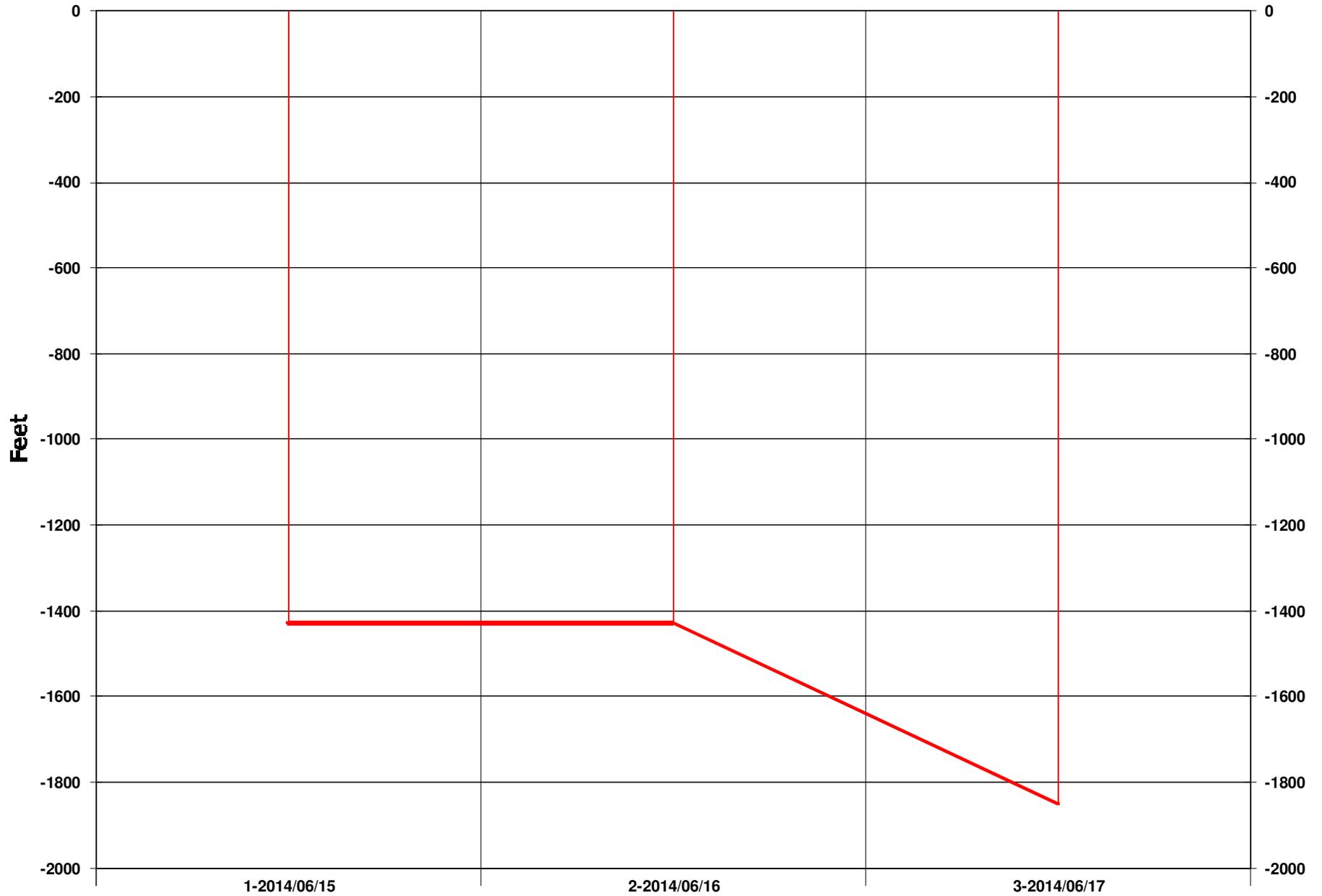
Depth vs BHA



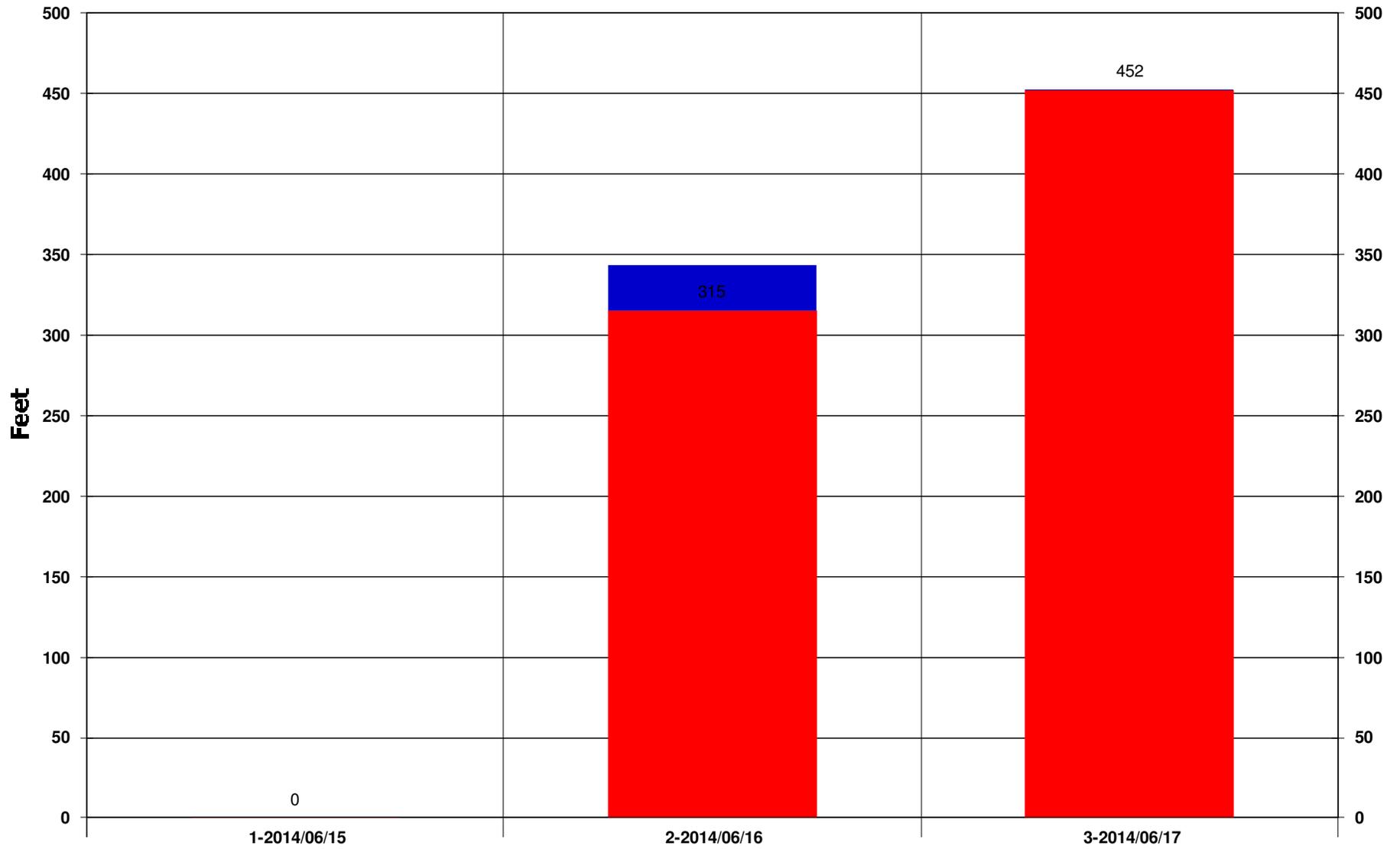
### Activity Histogram



### Measured Depth vs Days

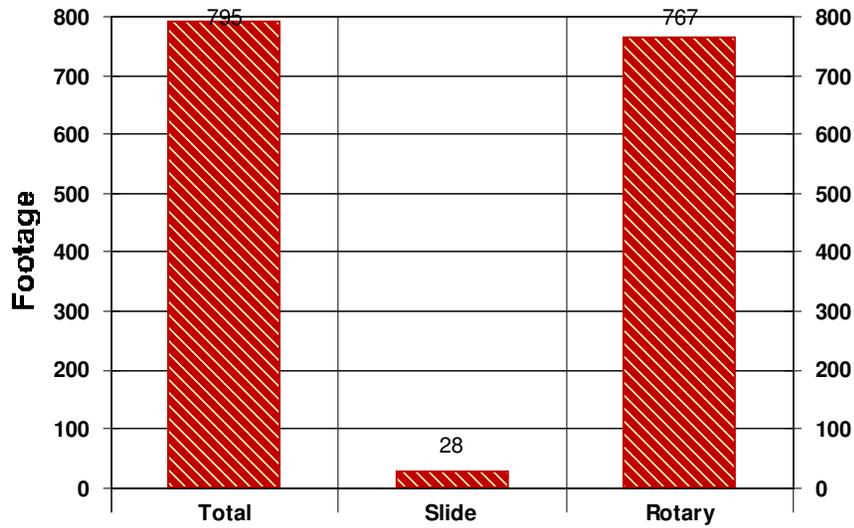


### Daily Footage

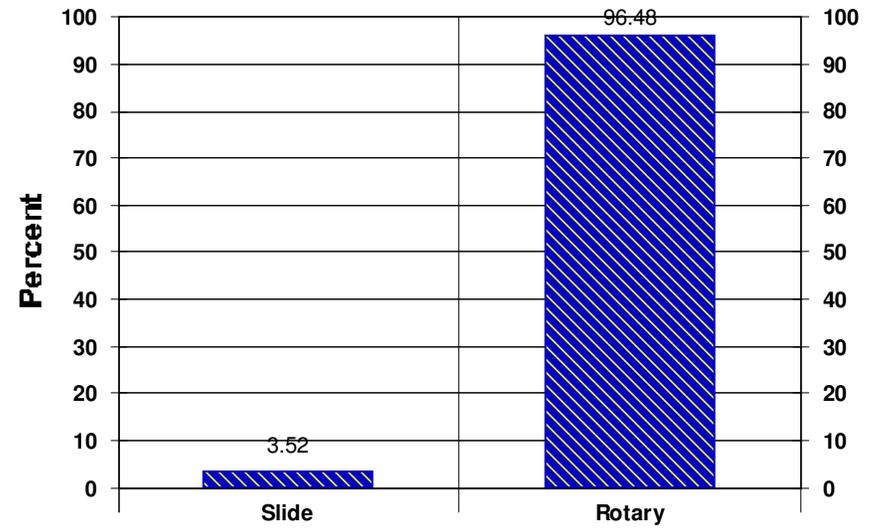


Rotary Drilling Sliding

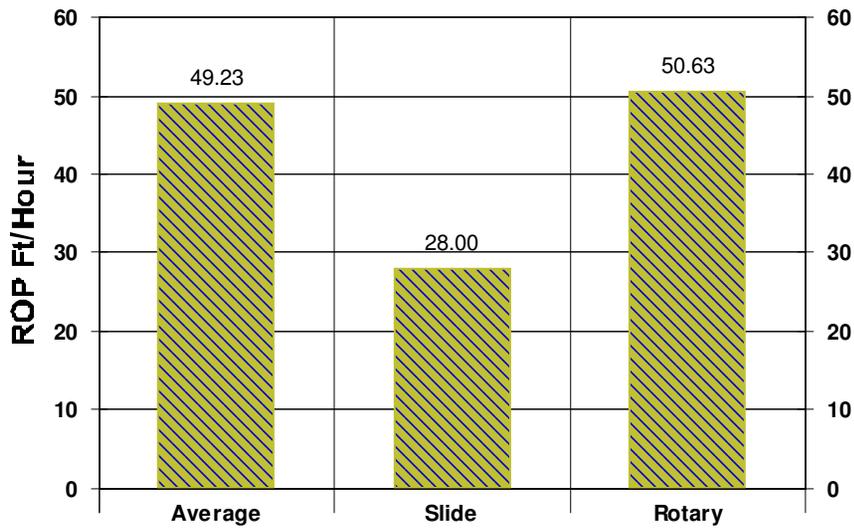
Footage Drilled Totals



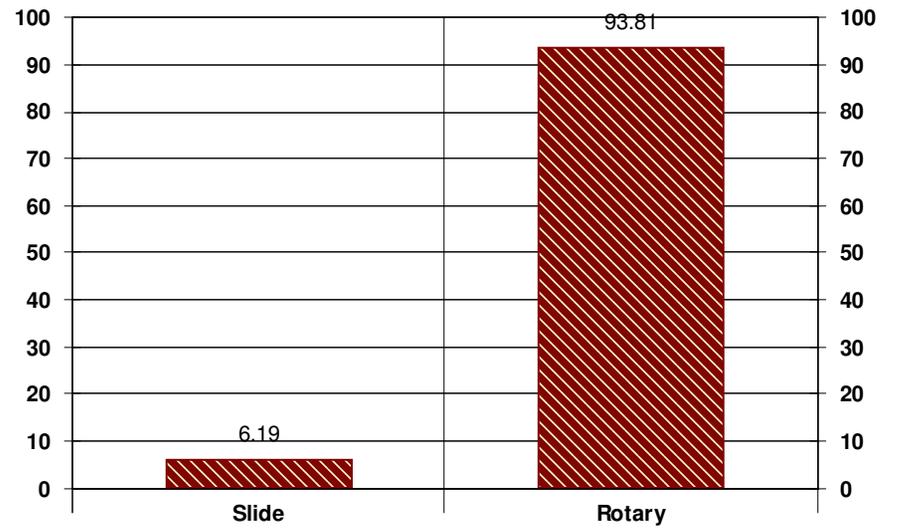
Footage Percent



Rate of Penetration Totals



Time Percent



<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> FEE
		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>1. TYPE OF WELL</b>		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>2. NAME OF OPERATOR:</b> BISON OPERATING COMPANY, LLC		<b>8. WELL NAME and NUMBER:</b> Nephi City #1-36
<b>3. ADDRESS OF OPERATOR:</b> 8086 S. Yale Ave. Suite 119 , Tulsa, OK, 74136		<b>9. API NUMBER:</b> 43023500020000
<b>PHONE NUMBER:</b> 918 482-5450 Ext		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0466 FNL 0846 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 36 Township: 12.0S Range: 01.0E Meridian: S		<b>COUNTY:</b> JUAB
		<b>STATE:</b> UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/18/2014	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY  
February 05, 2015**

<b>NAME (PLEASE PRINT)</b> Mark F. Harison	<b>PHONE NUMBER</b> 918 482-5450	<b>TITLE</b> President, PIMC, Manager
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/1/2015	

**Reset Form**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: Bison Operating Company, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 8086 S. Yale Ave. Suite 119 CITY Tulsa STATE OK ZIP 74136		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 466' FNL 846' FWL		8. WELL NAME and NUMBER: Nephi City #1-36
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 36 12S 1E S		9. API NUMBER: 4301350002
STATE: UTAH		10. FIELD AND POOL, OR WILDCAT: Wildcat
PHONE NUMBER: (918) 482-5450		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 6/18/2014	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Plug #1: 1100' to 800' across 7' shoe, 120 sx premium (15.8ppg 1.15 cfps), 800' to 650' 30 sx premium (15.8ppg 1.15 cfps)  
 Plug #2 : 300' to surface, 60 sx premium (15.8ppg 1.15 cfps)  
 Witnessed by DOGM Ammon McDonald.

NAME (PLEASE PRINT) <u>Mark F. Harison</u>	TITLE <u>President, PIMC, Manager of BOCLLC</u>
SIGNATURE 	DATE <u>2/1/2015</u>

(This space for State use only)

## INSTRUCTIONS

**This form shall be submitted by the operator to show the intention and/or completion of the following:**

- miscellaneous work projects and actions for which other specific report forms do not exist;
- all other work and events as identified in section 11, Type of Action, or as required by the Utah Oil and Gas Conservation General Rules, including:
  - minor deepening of an existing well bore,
  - plugging back a well,
  - recompleting to a different producing formation within an existing well bore (intent only),
  - re-perforating the current producing formation,
  - drilling a sidetrack to repair a well,
  - reporting monthly the status of each drilling well.

**This form is not to be used for proposals to**

- drill new wells,
- reenter previously plugged and abandoned wells,
- significantly deepen existing wells below their current bottom-hole depth,
- drill horizontal laterals from an existing well bore,
- drill hydrocarbon exploratory holes such as core samples and stratigraphic tests.

**Use Form 3, Application for Permit to Drill (APD) for such proposals.**

**NOTICE OF INTENT** - A notice of intention to do work on a well or to change plans previously approved shall be submitted in duplicate and must be received and approved by the division before the work is commenced. The operator is responsible for receipt of the notice by the division in ample time for proper consideration and action. In cases of emergency, the operator may obtain verbal approval to commence work. Within five days after receiving verbal approval, the operator shall submit a Sundry Notice describing the work and acknowledging the verbal approval.

**SUBSEQUENT REPORT** - A subsequent report shall be submitted to the division within 30 days of the completion of the outlined work. Specific details of the work performed should be provided, including dates, well depths, placement of plugs, etc.

**WELL ABANDONMENT** - Proposals to abandon a well and subsequent reports of abandonment should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, and method of parting of any casing, liner, or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

In addition to any Sundry Notice forms submitted, **Form 8, Well Completion or Recompletion Report and Log** must be submitted to the division to report the results of the following operations:

- completing or plugging a new well,
- reentering a previously plugged and abandoned well,
- significantly deepening an existing well bore below the current bottom-hole depth,
- drilling horizontal laterals from an existing well bore,
- drilling hydrocarbon exploratory holes such as core samples and stratigraphic tests,
- recompleting to a different producing formation.

Send to:

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

**Bison Operating Company, LLC  
8086 S. Yale Avenue  
Suite 119  
Tulsa, OK 74136  
mharison@valornet.com  
918-482-5450  
918 527-5710 cell**

February 1, 2015

Utah Department of Oil, Gas & Mining

RE: Log submission, Nephi City #1-36, 4302350002

Gentlemen,

Enclosed please find the mud and electric logs for the above-referenced well.

If you have any questions or require further information, please contact me.

**Also, please accept this letter as written authorization to remove this well from confidential status.**

Sincerely,



Mark F. Harison

President, Petroleum Interests Management Corporation (PIMC), Manager

**RECEIVED**  
**FEB 04 2015**  
**DIV. OF OIL, GAS & MINING**

**Reset Form**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT  FORM 8  
(highlight changes)

<b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>		5. LEASE DESIGNATION AND SERIAL NUMBER:
1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME
2. NAME OF OPERATOR: <b>Bison Operating Company, LLC</b>		8. WELL NAME and NUMBER: <b>Nephi City #1-36</b>
3. ADDRESS OF OPERATOR: <b>8086 S. Yale Ave #119 CITY Tulsa STATE OK ZIP 74136</b>		9. API NUMBER: <b>4302350002</b>
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>466' FNL 846' FWL</b>  AT TOP PRODUCING INTERVAL REPORTED BELOW: _____  AT TOTAL DEPTH: <b>550' FNL 619' FWL</b>		10 FIELD AND POOL, OR WILDCAT <b>Wildcat</b>
14. DATE SPUNNED: <b>6/3/2014</b>		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NWNW 36 12S 1E S</b>
15. DATE T.D. REACHED: <b>6/17/2014</b>		12. COUNTY <b>Juab</b>
16. DATE COMPLETED: <b>6/18/2014</b> ABANDONED <input checked="" type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>		13. STATE <b>UTAH</b>
17. ELEVATIONS (DF, RKB, RT, GL): <b>6,347 GL</b>		
18. TOTAL DEPTH: MD <b>1,850</b> TVD <b>1,850</b>	19. PLUG BACK T.D.: MD _____ TVD _____	20. IF MULTIPLE COMPLETIONS, HOW MANY? * _____
21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____		

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**DIL-FDC-CNL, Dipmeter**

23.  
 WAS WELL CORED? NO  YES  (Submit analysis)  
 WAS DST RUN? NO  YES  (Submit report)  
 DIRECTIONAL SURVEY? NO  YES  (Submit copy)

**24. CASING AND LINER RECORD (Report all strings set in well)**

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
19.5	20 cond		0	20		driven		NA	
17.5	13 5/8 H40	48	0	259		prem. 390	83	0 circ	
8.75	7 J55	23	0	882		prem. 297	63	0 circ	

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) NA								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

**28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.**

WAS WELL HYDRAULICALLY FRACTURED? YES  NO  IF YES -- DATE FRACTURED: \_\_\_\_\_

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

<p><b>29. ENCLOSED ATTACHMENTS:</b></p> <p><input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS      <input type="checkbox"/> GEOLOGIC REPORT      <input type="checkbox"/> DST REPORT      <input checked="" type="checkbox"/> DIRECTIONAL SURVEY</p> <p><input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION      <input type="checkbox"/> CORE ANALYSIS      <input type="checkbox"/> OTHER: _____</p>	<p><b>30. WELL STATUS:</b></p> <p><b>P&amp;A</b></p>
---	--

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

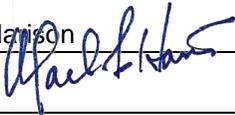
Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Arapian	335	785	fresh water flow up to 100 gpm	Alluvium	0
Arapian	900	1,100	fresh water flow up to 50 gpm	Arapian Shale	200
				Twin Creek (Slide Rock)	1.350
				Gypsum Springs	1.460
				Navaio	1.510

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Mark F. Harrison TITLE President, PIMC, Manager of BOCLLC  
 SIGNATURE  DATE 2/2/2015

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801



**Job Number:** UT141900  
**Company:** Bison Operating Company  
**Lease/Well:** Nephi City #1-36  
**Location:** Section 36, T12S, R1E  
**Rig Name:** Leon Ross Drilling Rig #36  
**RKB:** 9  
**G.L. or M.S.L.:** 6347 GL

**State/Country:** Utah/USA  
**Declination:** 11.58  
**Grid:** True  
**File name:** C:\WINSERVE\UT141900.SVY  
**Date/Time:** 17-Jun-14 / 14:46  
**Curve Name:** Nephi City #1-36 As Drilled

### Payzone Directional

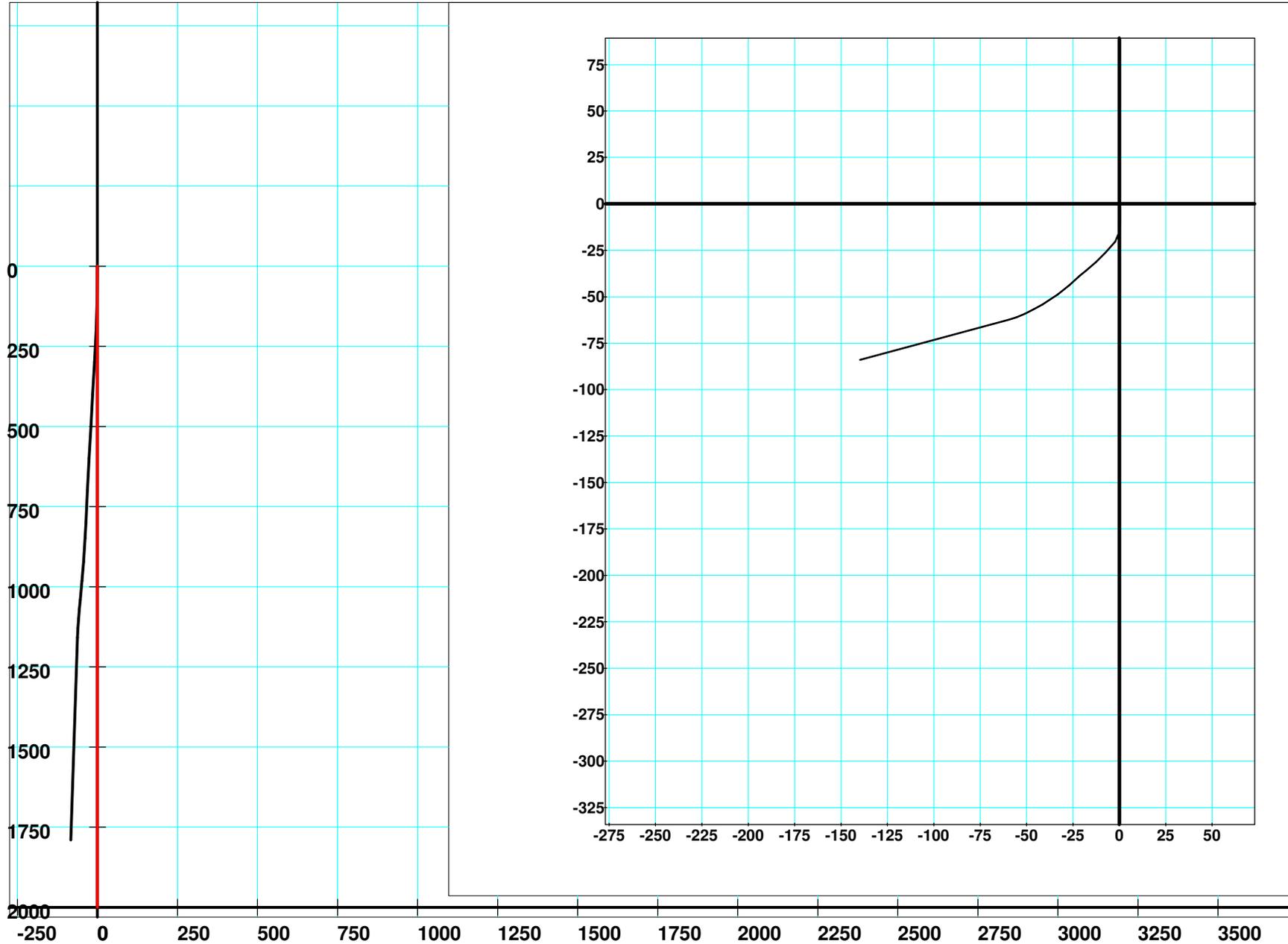
WINSERVE SURVEY CALCULATIONS  
*Minimum Curvature Method*  
*Vertical Section Plane .00*  
*Vertical Section Referenced to Wellhead*  
*Rectangular Coordinates Referenced to Wellhead*

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
<b>Gyro</b> .00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<b>Gyro</b> 100.00	1.31	169.78	99.99	-1.12	.20	-1.12	1.14	169.78	1.31
<b>Gyro</b> 200.00	2.21	179.53	199.94	-4.17	.42	-4.17	4.19	174.24	.94
<b>Gyro</b> 300.00	3.46	182.66	299.82	-9.11	.30	-9.11	9.12	178.14	1.27
<b>Gyro</b> 400.00	3.06	179.86	399.66	-14.80	.16	-14.80	14.80	179.37	.44
<b>Gyro</b> 500.00	4.20	220.41	499.47	-20.25	-2.21	-20.25	20.37	186.22	2.73
<b>Gyro</b> 600.00	4.66	222.97	599.17	-26.01	-7.35	-26.01	27.03	195.77	.50
<b>Gyro</b> 700.00	3.81	226.03	698.90	-31.29	-12.50	-31.29	33.69	201.78	.88
<b>Gyro</b> 800.00	4.60	232.93	798.63	-36.01	-18.09	-36.01	40.30	206.68	.94
<b>Gyro</b> 850.00	5.07	228.47	848.45	-38.68	-21.35	-38.68	44.18	208.89	1.19
924.00	6.77	227.97	922.05	-43.77	-27.03	-43.77	51.45	211.70	2.31
984.00	8.48	233.86	981.52	-48.75	-33.23	-48.75	59.00	214.28	3.13
1044.00	10.37	239.35	1040.71	-54.11	-41.45	-54.11	68.16	217.45	3.48
1074.00	10.42	241.94	1070.22	-56.76	-46.17	-56.76	73.17	219.12	1.57
1104.00	10.00	244.90	1099.74	-59.14	-50.92	-59.14	78.05	220.73	2.24
1134.00	9.00	249.60	1129.33	-61.07	-55.48	-61.07	82.51	222.26	4.22
1164.00	7.50	255.00	1159.02	-62.39	-59.57	-62.39	86.26	223.68	5.62
1194.00	6.11	254.64	1188.81	-63.32	-63.00	-63.32	89.32	224.86	4.64

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1224.00	5.41	254.55	1218.66	-64.12	-65.91	-64.12	91.95	225.79	2.33
1254.00	5.40	254.10	1248.52	-64.88	-68.63	-64.88	94.44	226.61	.15
1284.00	5.90	253.60	1278.38	-65.71	-71.46	-65.71	97.08	227.40	1.67
1314.00	6.00	255.50	1308.22	-66.53	-74.46	-66.53	99.86	228.22	.74
1344.00	6.00	257.20	1338.05	-67.27	-77.51	-67.27	102.63	229.04	.59
1374.00	6.10	249.60	1367.89	-68.18	-80.53	-68.18	105.51	229.75	2.69
1404.00	6.20	249.80	1397.71	-69.29	-83.54	-69.29	108.54	230.33	.34
1434.00	6.20	253.60	1427.54	-70.31	-86.62	-70.31	111.56	230.93	1.37
1464.00	6.30	253.40	1457.36	-71.24	-89.75	-71.24	114.59	231.56	.34
1494.00	6.20	252.00	1487.18	-72.21	-92.87	-72.21	117.64	232.13	.61
1524.00	5.80	248.80	1517.02	-73.26	-95.82	-73.26	120.62	232.60	1.74
1554.00	5.40	251.80	1546.87	-74.25	-98.58	-74.25	123.41	233.01	1.65
1584.00	6.10	256.00	1576.72	-75.07	-101.46	-75.07	126.22	233.50	2.72
1614.00	6.10	256.00	1606.55	-75.84	-104.56	-75.84	129.17	234.04	.00
1644.00	6.00	257.10	1636.39	-76.58	-107.63	-76.58	132.10	234.57	.51
1674.00	5.90	251.90	1666.22	-77.41	-110.63	-77.41	135.02	235.02	1.83
1704.00	5.90	251.50	1696.07	-78.38	-113.55	-78.38	137.98	235.39	.14
1734.00	5.40	252.22	1725.92	-79.30	-116.36	-79.30	140.81	235.73	1.68
1764.00	5.80	248.60	1755.78	-80.28	-119.12	-80.28	143.64	236.02	1.78
1794.00	5.80	243.35	1785.62	-81.51	-121.88	-81.51	146.63	236.23	1.77
1796.00	5.80	243.35	1787.61	-81.60	-122.06	-81.60	146.83	236.24	.01
<b>Projection to bit</b>									
1850.00	5.80	243.35	1841.34	-84.05	-126.94	-84.05	152.25	236.49	.00

Sundry Number: 60510 API Well Number: 43023500020000

**Job Number:** UT141900  
**Company:** Bison Operating Company  
**Lease/Well:** Nephi City #1-36  
**Location:** Section 36, T12S, R1E  
**Rig Name:** Leon Ross Drilling Rig #36





**PACKING SLIP**

**Invoice Number:**  
1-28002

1697 West 2100 North  
Lehi, Utah 84043  
(801) 768-4422 / (801) 531-1456  
Fax (801) 768-3967  
**SOLD TO:**  
Taurus Plumbing & Excavating  
Alex  
210 W Center  
Nephi, UT 84648

**Will Call:**  
Taurus Plumbing & Excavating

*Reese Flat well site  
Bison Const*

<b>Accounting Code:</b>	<b>Customer P.O.:</b>	<b>Ordered By:</b>	<b>Phone Number:</b> 435-660-9021	<b>Date Shipped</b>
<b>Terms:</b> Cash	<b>Shipper:</b> Will Call	<b>Freight: Prepaid/Collect</b>	<b>FOB:</b>	<b>Sales Rep:</b> Josh Buck

Price By	Quantity Shipped	Description	Variety
*** MIX # 147010 CUSTOM MIX ***			
PLS #	4.00	Agropyron cristatum Crested wheatgrass	Fairway
PLS #	4.00	ELYTRIGIA INTERMEDIA Intermediate wheatgrass	Oahe
PLS #	5.00	Smooth Bromegrass Bromegrass, Smooth	Lincoln
PLS #	4.00	Pascopyrum smithii Western wheatgrass	Arriba
PLS #	4.00	Leymus cinereus Wildrye, Great Basin	Magnar
PLS #	4.00	Elymus trachycaulus ssp. trachycaulus Slender wheatgrass	Revenue
PLS #	0.50	ARTEMISIA TRIDENTATA Sagebrush, Basin Big	VNS

**MIX TOTAL PLS # 25.50**

Received By: *Alex D.*

Date: 12 / 2 / 10

PACKING SLIP  
Invoice will be sent to the SOLD TO address listed

*Nephi City #1-36  
(43-023-50002)  
36 12S 1E*