BUREAU OF SURFACE AND MINERAL RESOURCES

300 North 6th Street Suite 103 PO Box 83720 Boise ID 83720-0050 Phone (208) 334-0200 Fax (208) 334-3698



GEORGE B. BACON, DIRECTOR EQUAL OPPORTUNITY EMPLOYER

STATE BOARD OF LAND COMMISSIONERS

C. L. "Butch" Otter, Governor Ben Ysursa, Secretary of State Lawrence G. Wasden, Attorney General Donna M. Jones, State Controller Tom Luna, Sup't of Public Instruction

> Hand Delivered December 9, 2009

Dan Hall Bridge Energy, LLC 1580 Lincoln Street, Suite 1110 Denver, Colorado 80203

SUBJECT: Permit to Drill LU600005 (API#11-075-20-008, Schwarz #1-10)

The Idaho Department of Lands has completed our review of this permit to drill for oil and gas. Enclosed is a copy of the approved permit. This permit was approved with the following stipulations:

- The permittee shall be required to submit an affidavit covering the initial BOP pressure test after installation signed by the operator or contractor attesting to the satisfactory pressure test.
- The permittee shall ensure mud pits are adequately sized, designed and constructed for the reception and confinement of mud and cuttings and to prevent contamination of streams and potable water.
- 3. The 16" 0.219" WT conductor pipe will be increased in length to extend 50 feet from the surface.
- 4. Drilled holes cannot be used for any other purposes unless they are constructed according to the applicable well construction standards administered by the Idaho Department of Water Resources.
- No secondary recovery efforts have been applied for, and Class II injection wells for injecting brines and other fluids to aid oil and gas production may not be permitted.
- 6. Non-productive wells must be decommissioned prior to drilling the next hole.
- Temperature readings must be periodically taken to insure that the correct cement is used. Temperature readings must be logged and submitted with other well information after hole completion.
- Applicant will obtain necessary water rights from Idaho Department of Water Resources if nearby wells will be used to supply water for the drilling operations.

Please ensure that all operations are conducted in accordance with the requirements of IDAPA 20.07.02 (Rules Governing Conservation Of Crude Oil And Natural Gas In The State Of Idaho).

This permit will be administered by Nancy Welbaum in our Southwest Supervisory Area. She will be inspecting the drilling operation, and may be accompanied by our contractor assisting with inspections. Please contact her at 208-334-3488 if you have any questions.

Sincerely,

Eric Wilson

Navigable Waters/Minerals Program Manager

cc: Nancy Welbaum

Brian Ragan, IDWR, PO Box 83720, Boise, Idaho 83720-0098



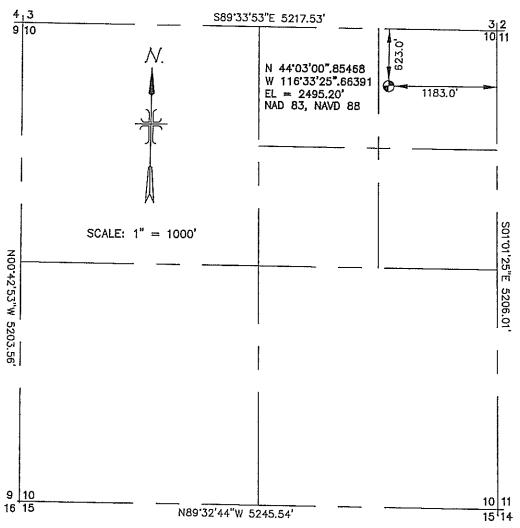
IDAHO OIL AND GAS CONSERVATION COMMISSION Application For Permit to Drill, Deepen or Plug Back

APPL	ICATION TO: Drill 🛚 Deeper	n ☐ Plug Back ☐	
NAME OF COMPANY OR OPERATOR:	Bridge Energy, LLC.		Date: <u>1 9/4/09</u>
Address: 1580 Lincoln Street,	<u>Suite 1110</u>		
City: Denver	State: CO Zip Code: 802	03 Telephone: <u>(3</u> (3)831-9022
Distance, in miles, and direction from nea	arest town or post office:		
	DESCRIPTION OF WELL AND	LEASE	
Name of Lease: Schwarz Well Location: Section: 10 Townsh	Well Number: #1-10	Elevation (groui	nd) 2495
Well Location: Section:10_ Townsh	ip:8NRange:_	2W	(or block and survey)
	623' FNL and 1,183' FE	EL (NENE)	
Field and Reservoir (if wildcat, so state):	Wildcat		County: Payette
Nearest distance from proposed location	to property or lease line:1	,183	feet
Distance from proposed location to neare			
Proposed depth: 4,600'	Rotary or cable tools:	Rotary	
Approx date work will start: November	1, 2009 Number of acres	in lease: 10,735.6	4
Number of wells on lease, including this v			
If lease purchased with one or more wells	•		
Purchased from (name) $^{ m n/a}$	•		
Address of above			
Status of bond			
Remarks: (If this is an application to deep		work to be done, giving p	present producing zone
and expected new producing zone) S	, -	• • • • • • • • • • • • • • • • • • • •	
In order to optimize structu			
location, an exception locat			
regarding this permit to Dan			
CERTIFICATE: I, the undersigned, s	tate that I am the Con	sultant	
of Bridge Energy, LLC.			npany) and that I am
authorized by said company to make thi	s application and that this applic	,	
firection and that the facts stated herein a		• •	• ,
		and best of thy knowledge	7 .
Date: 9-4-09	Signature: Haw	1/ll	
		11	
Permit Number: <u>LU 600005</u> Approva	al Date: 12-9-09 Approved I	oy: Hough I Ja	ên

NOTICE: Before sending in this form, be sure that you have given all information requested. See instructions on back.

EXHIBIT MAP OF

Lying in a Portion of the NE Quarter of the NE Quarter of Section 10, Township 8 North, Range 2 West, of the Boise Meridian, Payette County, Idaho 2009





NOTE:

NOTE:
NO ORIGINAL MONUMENTS WERE FOUND FOR SECTION 10;
SECTION 10 WAS CALCULATED, IN CONFORMANCE, WITH THE
BLM 1973 MANUAL OF SURVEYING INSTRUCTIONS, USING
CORNERS FOUND WITHIN TOWNSHIP 8 NORTH, RANGE 2 WEST.
REFER TO THE VICINITY MAP TO OBSERVE WHICH CORNERS
WERE FOUND AND UTILIZED FOR THIS SURVEY.

DATE: August 31, 2009	FILE: 6397-01-04 SECTION TIE.dwg
ALS	Surveyors • Planners 1103 West Main Street Middleton, Idaho 208—585—5858

EXHIBIT MAP OF THE RAYMER SITE

Lying in a Portion of the NE Quarter of the NE Quarter of Section 10, Township 8 North, Range 2 West, of the Boise Meridian, Payette County, Idaho

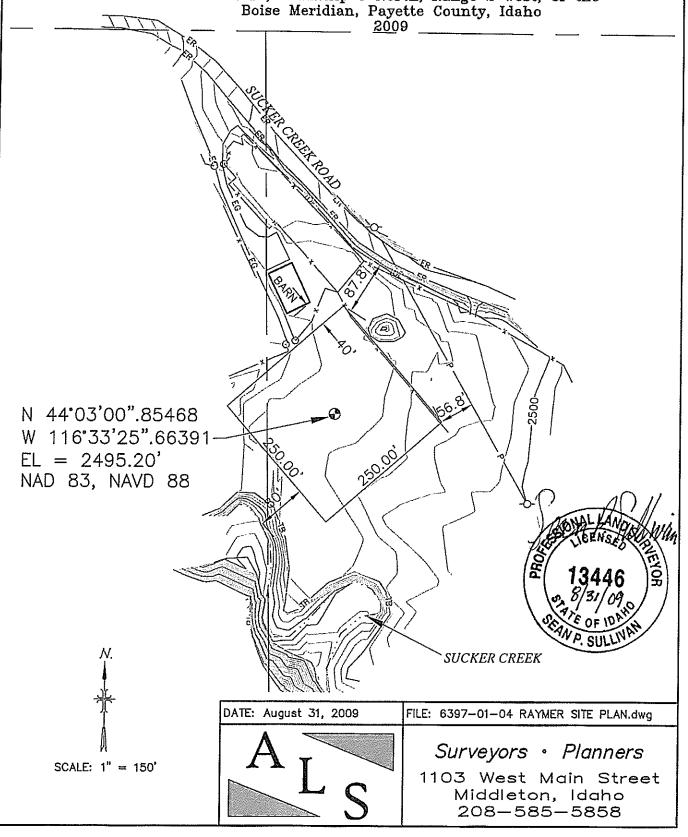
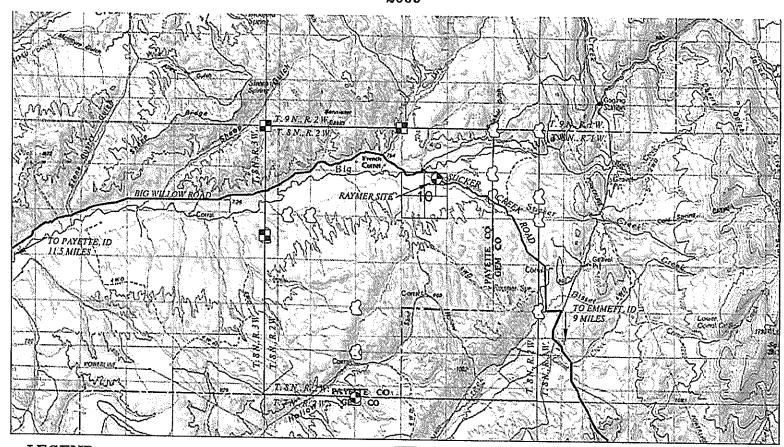




EXHIBIT MAP OF THE RAYMER SITE

| He SCALE: 1"=2 MILES

Lying in a Portion of the NE Quarter of the NE Quarter of Section 10, Township 8 North, Range 2 West, of the Boise Meridian, Payette County, Idaho 2009



LEGEND

- Found Aluminum Cap
- Found Stone
- Found Pipe

DATE: August 31, 2009

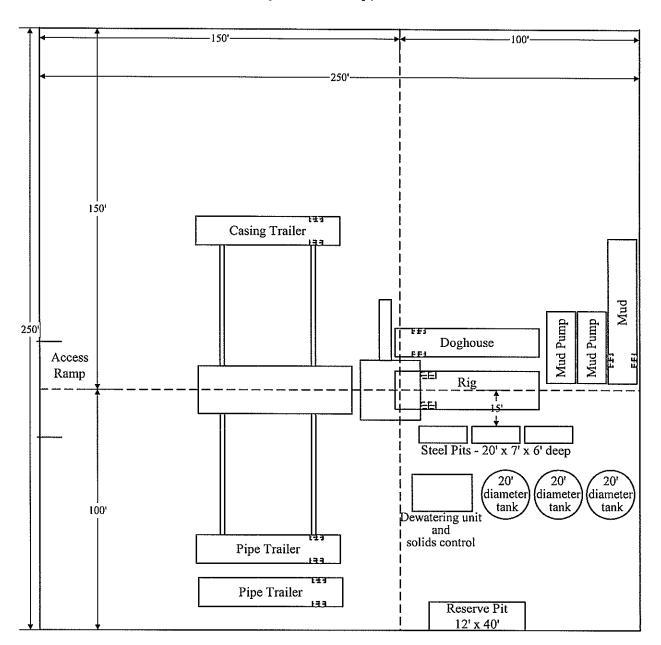
ALS

FILE: 6397-01-04 VICINITY.dwg

Surveyors · Planners

1103 West Main Street Middleton, Idaho 208-585-5858

Bridge Energy LLC Schwarz #1-10 Drilling Rig Layout NENE, Section 10-T8N-R2W Payette County, Idaho





DRILLING PROGNOSIS BRIDGE ENERGY, LLC

Schwarz #1-10 (Raymer Prospect) NENE, Section 10-Township 8N-Range 2W

Payette County, Idaho

September 4, 2009

GENERAL

NOTE:

This well is to be drilled as a tight hole. Unauthorized personnel are not to be

allowed on the rig floor, and all information is to be kept confidential.

Surface Location:

623' FNL and 1183' FEL (NENE), Section 10-T8N-R2W

Bottomhole Location:

Same

Proposed TD/Objective:

4,600 ft /Tertiary Sands

Elevation:

2,495' GL (ungraded); 2,510' KB (estimated).

Drilling Rig:

To be determined.

MECHANICAL

Casing Design:

SIZE	INTERVAL	LENGTH	<u>DESCRIPTION</u>	<u>SFt</u>	<u>SFc</u>	<u>SFb</u>
16"	0' - 30'	30'	Conductor (0.219" WT)			
9-5/8"	0' - 500'	500'	36#, J-55, STC	21.9	8.18	7.04
5-1/2"	0' - 4,600'	4,600'	15.5#, J-55, STC	2.83	1.69	1.60
2-7/8"	0'-4,600'	4,600'	6.5#, J-55, EUE	3.33	3.21	1.45

NOTE: If mud weight exceeds 10.0 ppg at TD, casing design may be altered. Tack weld guide shoe to surface casing. Strap weld first casing joint and the bottom of the collar of the second joint. Clean and drift all strings of casing prior to running. Remove all thread sealant (Kindex) prior to running. Unload production casing and tubing strings with a forklift.

CEMENT

CASING/HOLE SIZE	CEMENT SLURRY	<u>SX</u>	<u>PPG</u>	YIELD
16" - 24"	Cement to surface with 4 yds Redi-mix.			
9-5/8" - 12-1/4"	Lead: Premium Light cement + 2% CaCl ₂ + 1/4 pps flocele Tail: Class G + 2% CaCl ₂	100	12.0	2.27
	+ 1/4 pps flocele	100	15.8	1.15

NOTE: Precede cement with 50 bbl fresh water. Have 100 sx neat cement and one-inch tubing on location for topping-off. Cement volume has been calculated assuming 100% excess.

Drilling Prognosis Raymer Prospect Schwarz #1-10 Page Two

CASING/HOLE SIZE	CEMENT SLURRY	<u>SX</u>	<u>PPG</u>	YIELD
5 1/2" – 8 3/4"	Class G cement containing fluid loss additive, bonding agent, and retarder as required.	300	15.8	1.15

NOTE: Prior to cementing, slowly lower mud viscosity to 35-sec funnel viscosity. Circulate hole for 1 hour at this viscosity prior to cementing. Precede cement with 1000 gal mud flush and 30 bbl fresh water spacer. Cement top contingent upon the presence of potentially productive intervals. Actual cement volume to be determined from caliper log. Run pilot tests on proposed cement with actual make-up water. Cement design may be altered depending on actual bottomhole temperatures and the presence of lost circulation. Do not move the casing (under any circumstances) while setting the casing slips.

CEMENTING ACCESSORIES

Surface Casing:

- 1) Guide shoe with insert float located one joint above shoe.
- Top wiper plug (rubber).
- 3) Centralizer with stop ring in middle of shoe joint.
- 4) Centralizers over collars on first three connections, omitting float collar.
- 5) Use a total of five centralizers.

Production Casing:

- 1) Differential-fill float collar located one joint above differential-fill float
- 2) Top and bottom wiper plug.
- 3) Centralizer with stop-ring in the middle of shoe joint.
- 4) Centralize through and 100' on either side of potentially productive intervals. Run at least 12 centralizers.
- 5) Thread-lock all connections through float collar and use API casing dope on all remaining connections.
- 6) Stage cementing tool may be run to ensure placement of cement across any productive intervals and fresh water sands.
- 7) Centralize above and below stage cementing tool (if run).

WELLHEAD

Casing Head:

9-5/8" x 11" x 3,000 psi WP flanged casing head with two-2" LP outlets. Outlets equipped with one-2" 3,000 psi WP ball valve, and one-2" x 3,000 psi WP bull plug

on the outlets.

Tubing Head:

11" x 7-1/16" x 3,000 psi WP tubing head with two-2" LP threaded outlets. Outlets to be equipped with 2" x 3,000 psi WP ball valves.

Upper Half:

To be determined.

Drilling Prognosis Raymer Prospect Schwarz #1-10 Page Three

MUD PROGRAM

INTERVAL	WEIGHT (PPG)	VISCOSITY (SEC)	WL (CCS)
0' - 500'	8.5 - 9.0 ppg	30 - 45 sec	NC

Spud well with fresh water. Circulate reserve pit to maintain clear water at the pump suction. Addition of lime and/or a selective flocculant may be made at the flowline to promote solids settling in the reserve pit. Keep hole full and drill pipe moving at all times. Sweep hole with gel/lime/polymer as necessary, and prior to running surface casing.

INTERVAL	WEIGHT (PPG)	VISCOSITY (SEC)	WL (CCS)
500' – 4,600'	8.5 - 9.0 ppg	28 - 34 sec	10 ccs or less

After drilling our surface casing shoe, treat out cement contamination and mud-up with low-solids, non-dispersed mud system utilizing gel, caustic soda, and PHPA polymer. Keep trip speeds down to reduce surge-swab pressure. Keep hole full at all times. Monitor pit volume constantly as lost circulation and water flows should be expected at all times. Sweep hole as dictated by hole conditions. Keep the drill pipe moving at all times. Monitor the system for the presence of bacteria and treat out accordingly. Fluid loss may be reduced with the addition of PAC material, if sloughing shales are encountered. Have 100-200 ppm nitrates in the system prior to drilling any potentially productive interval.

DEVIATION

Deviation tendencies in this area should not be severe; however, prudent drilling practices should be adhered to at all times. Surveys should be run at ± 500 ft intervals, unless otherwise indicated.

WELL CONTROL EQUIPMENT

INTERVAL	EQUIPMENT
0' - 500'	None
500' – 4,600'	11" x 3,000 psi WP double-gate BOP with blind and 4-1/2" pipe rams. Rig should be equipped with upper and lower kelly cocks, as well as stabbing valve (have wrench available at all times). BOP equipment will be tested after nipple-up and every 30 days thereafter. (Notify Idaho State field representative prior to testing). Close pipe rams daily and blind rams on trips, recording results on tour sheets.

GEOLOGICAL

Geologist/Mud Logger: Geologist and mud logger with hotwire and chromatograph to be on location to

from base of surface casing to TD. Notify prior to spud and after setting surface

casing.

Electric Logging: DIL-SFL-SP and BHC Sonic-GR-CAL to be run in tandem from base of surface

casing to TD. LDT-CNL-GR-CAL may be run at the geologist's discretion.

Drilling Prognosis Raymer Prospect Schwarz #1-10 Page Four

GEOLOGICAL (Continued)

Formation Tops:

Assumes KB elevation of 2,510 ft.

FORMATION	<u>TOP</u>	SUB SURFACE
Upper and Lower Sands	Surface	+ 2,510'
Lower Shale	900'	+ 1,610'
Grassy Mountain Basalt	1,400'	+ 1,110'
Columbia River Basalt	3,000'	- 490'
Total Depth	4,600'	- 2,090'

Drillstem Testing:

Potential test of any significant show (possible test of significant shows). Unless otherwise indicated, recommended DST times will be as follows: IF (15 min.), ISI (60 min), FF (60-90 min, depending on blow at surface), and FSI (2 x FF). Keep length of anchor to a minimum while testing. Test string should include dual packers, top and bottom pressure recorders, jars, safety joint, sample chamber, and reverse circulating sub (pressure and bar-activated). Monitor fluid entry throughout test with echometer. Have Draeger tester on location to monitor H2S concentration of any produced fluids.

MISCELLENEOUS

.....

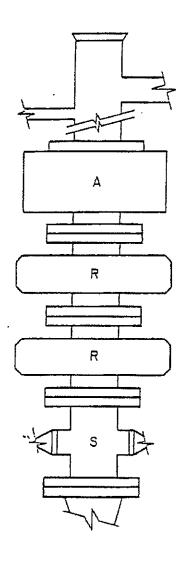
- Pump carbide lag prior to running surface casing and prior to drilling out shoe. Pump efficiencies
 will be calculated from this information. Run frequent carbide lags while drilling to determine degree
 of hole washout.
- 2. Monitor mud hydraulics closely. An in-gauge hole is extremely critical to achieve open-hole packer seats, interpretable logs, and a good cement bond.
- 3. Water will be hauled or pumped from nearby sources.
- 4. Reserve pit is to be lined with a 12-mil synthetic liner.
- 5. It is anticipated that a mud motor and PDC bit will be used from approximately 500' to TD.
- 6. In general, the above prognosis is presented as a guideline only; and is subject to change as dictated by hole conditions and geological interpretation.

PERSONNEL	OFFICE NUMBER	CELL NUMBER
Dan Hall, Consulting Engineer	303-969-9610	303-618-1877
Jeff Kirn, Manager of Operations	303-831-9022	303-981 - 7443
Ed Davies, President	303-831-9022	720-641-8737

Prepared by:

Dan Hall

Energy Operating Company, Inc.



Bridge Energy LLC.
Schwarz #1-10
Payette County, Idaho
BOP and Choke Manifold Schematics

FIGURE 1
BOP Schematic - 3000 psi Working Pressure
Arrangement SRRA

FIGURE 2
Choke Manifold Schematic
3000 psi Working Pressure

