



State of Utah
DEPARTMENT OF NATURAL RESOURCES
UTAH GEOLOGICAL SURVEY

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
M. Lee Allison
State Geologist

1594 West North Temple, Suite 3110
PO Box 148100
Salt Lake City, Utah 84114-8100
801-537-3300
801-537-3400 (Fax)
http://www.ugs.state.ut.us

December 28, 1998

Dr. Dennis Nielson
Energy & Geoscience Institute
University of Utah
423 Wakara Way
Salt Lake City, Utah 84108-1210

Dear Dennis:

The Utah Geological Survey is supportive of your efforts to core both Great Salt Lake and Bear Lake with the proposed lake drilling rig. We will make our Sample Library facilities available to you and your colleagues to lay out, examine, process, and store (short or long term) any or all of the core or other samples you collect.

The UGS Sample Library moved into a new building in October, 1998. It boasts a 60% increase in storage capacity, layout and examination areas, a classroom, and sample preparation lab. We have a full time sample librarian and additional warehouse workers and geotechs to assist in core handling as needed.

We look forward to working with you on this project.

Sincerely,

M. Lee Allison
Director

Post-it® Fax Note	7671	Date	12/28/98	# of pages	▶
To	Dennis Nielson	From	Lee Allison		
Co./dept.		Co.			
Phone #		Phone #			
Fax #	801-537-3540	Fax #	801-537-3400		

RECEIVED

MAR 08 2000

DOSECC, Inc.

Drilling, Observation and Sampling of the Earth's Continental

DIVISION OF FORESTRY,
FIRE AND STATE LANDS

Dr. Dennis L. Nielson
Executive Director
801-585-6855
801-585-9687

423 Wakara Way, Suite 300
Salt Lake City, Utah 84108

Karl
Pls Process.

March 7, 2000

Mr. Arthur W. DuFault
Director, Division of Forestry, Fire and State Lands
P.O. Box 146703
Salt Lake City, UT 84114-5703

Art

Dear Mr. DuFault:

This letter is an application to perform drilling operations in the Bear Lake. The purpose of this drilling is to collect continuous core samples that will be analyzed to determine the paleo-climate history of the lake. The drilling is being funded by the U. S. National Science Foundation and the U. S. Geological Survey. The scientific investigators on the project and their home institutions are as follows:

Dr. Kerry Kelts, University of Minnesota
Dr. Andrew Cohen, University of Arizona
Dr. David A. Dinter, University of Utah
Dr. Owen Davis, University of Arizona
Dr. Jack Oviatt, Kansas State University
Dr. Walter E. Dean, U. S. Geological Survey

DOSECC, Inc will serve as the operator for this project. DOSECC is a non-profit corporation established in 1984 to aid the scientific community in the collection of subsurface samples. DOSECC has served as the operator on a number of scientific holes, most recently the Hawaii Scientific Drilling Program that was drilled on the Island of Hawaii and collected continuous core to a depth of 10,201 feet.

Drilling Equipment and Methods

The holes will be drilled using the GLAD800 drilling system. This system is being developed specifically for continuous core drilling in modern lakes through a joint venture between DOSECC and the International Continental Scientific Drilling Program in Potsdam, Germany. The system consists of a modified Christensen LC1500 coring rig mounted on a modular barge. The system is shown schematically in Figure 1 and specifications are outlined in Table 1. Drilling methods will be determined by lithology and hole conditions and will be based on techniques used in the Ocean Drilling Program. Techniques available will be push coring, hydraulic piston coring (HPC), diamond coring, and rotary drilling. The hole will be drilled to 4.5 inch diameter (HWT size).

The general drilling plan is as follows:

1. Sample with HWT hydraulic piston core to a nominal depth of 10 m. The depth will be determined by the presence of a competent lithologic unit that will be capable of supporting a riser pipe.
2. Wash in riser pipe over HWT and tie back to the barge. Riser pipe has a diameter of 6 inches.
3. Sample using appropriate coring techniques to the designed depth. Hole will be vertical.
4. Pull out HWT. Pull out riser.

Core samples will be retrieved in plastic liners in nominal 3 m lengths. These will be cut into 1.5 m lengths and capped. The samples will be transported to shore for analysis.

Circulation of drilling fluid is not required for the push coring and HPC activities. The advance of the diamond coring bit or rotary drilling assembly will require fluid circulation. During these operations, lake water without additives will be used as the drilling fluid and will be discharged through the riser at the lake bottom.

Hole Locations and Depths

The location of the holes is shown in Figure 2 and described in greater detail in the following table.

<u>Hole</u>	<u>Depth (m)</u>	<u>Location</u>
BL-1A	100	41° 57' 06" N, 111° 18' 30" W
BL-1B	100	41° 57' 06" N, 111° 18' 30" W

BL-1A and B

BL-1A and B will be drilled along an east-west trending seismic line that was run in 1997 (Fig. 2 and Fig. 3). Shallow cores were collected along this line in 1996 and 1998. Two separate holes (A and B) will be drilled at this site, separated by 10 m or less. Since core is generally disrupted at the end of core runs, the depth of the runs will be offset to provide a continuous sample of the sedimentary sequence.

Geophysical Logging

Contingent on hole conditions, we intend to run a geophysical logging program that will consist of a gamma ray and temperature log run through the drill pipe.

Potential Hazards and Mitigation

Blow Out

Shallow core holes and seismic data suggest that the holes will be drilled in organic-poor carbonate and red (oxidized) siliciclastic sediments. In addition, there is no indication of the

presence of natural gas in the seismic data. We conclude that the potential for encountering natural gas is extremely low.

Spills

Lakes throughout the world are environmentally sensitive and the GLAD800 system is designed to minimize the potential for contamination from spilled fuel and lubricants. Solid decking with sides has been installed under fuel, motor and hydraulic tanks. All drilling operations will be performed through a moonpool where any spills will be confined by the barge. Also, during drilling operations, the barge will be surrounded by a containment boom that will limit the dispersal of any accidental spills.

Storms

No drilling operations will be conducted during storms. We have chosen a time of year that is normally only effected by thunderstorms of relatively short duration. At the discretion of the on-board supervisor, depending on storm severity, our procedure will be as follows:

1. Drilling operations will be stopped and drill rods removed from the well, but riser left in place.
2. Riser also removed.
3. Crews evacuated to crew boat.

Plug and Abandon

Following completion of drilling, the drill rods and riser will be removed. Due to the unconsolidated nature of the formation, it is anticipated that the hole will fill with sediments upon the retrieval of the HWT rods and riser pipe.

Sample Disposition

Core samples will be initially sent to the Utah Geological Survey Sample Library where space has been provided for an initial characterization (see attached letter from M. Lee Allison). Here the cores will be prepared for shipping to the Limnological Research Center at the University of Minnesota where the detailed analysis will be performed.

Please contact me if you require additional information concerning this application.

Sincerely,



Dennis L. Nielson
Executive Director

Figure 1
 General Configuration of
GLAD800 Rig and Barge

Barge Length: Keel: 18.3 m (60 ft), Deck 20.4 m (67 ft)
 Barge Height: 2.6 m (8.5 ft)
 Barge Width: 7.3 m (24 ft)
 Derrick Height: 9.8 m (32 ft)
 Rig/Barge Displacement 130,000 lb.
 Water in Lower Compartments 240,000 lb.

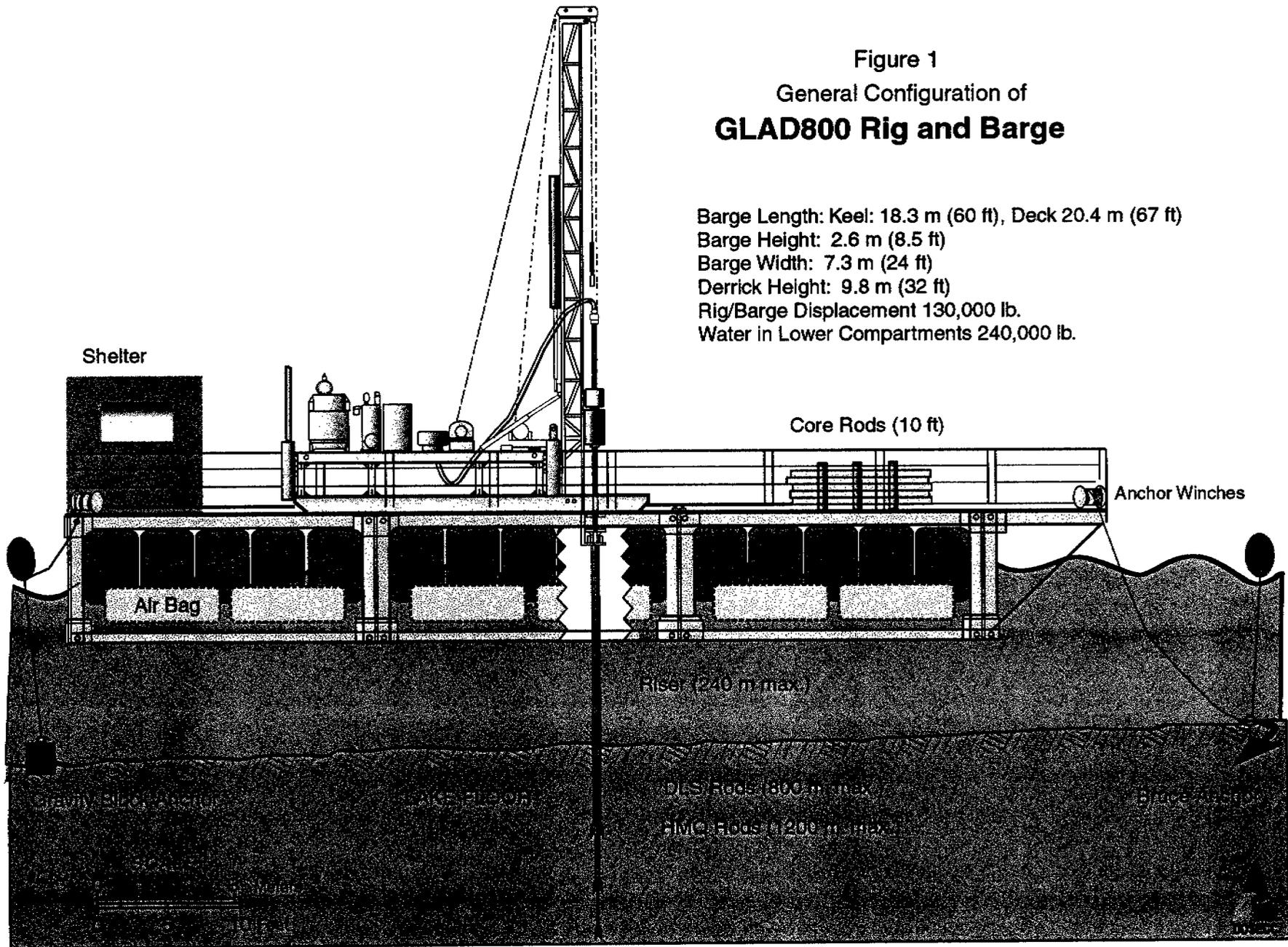


Table 1

SPECIFICATIONS FOR DRILLING RIG ON GLAD800

Depth Capacity Coring (Wireline or Conventional)

HMQ Wireline 4590 ft (1350 m)
 DLS Wireline 2830 ft (800 m)

Hoisting Capacity

Main

Capacity: Single Line-Bare Drum 17,500 lb (7955 kg)
 Double Line-Bare Drum 35,000 lb (15,900 kg)
 Line Speeds: Bare Drum 132 ft/min (40 m/min)
 Cable Size: 110 ft (33.6 m) X 5/8 in (15.9 mm)

Wireline

Capacity: Single Line-Bare Drum 2,500 lb (1,136 kg)
 Single Line-Full Drum 840 lb (382 kg)
 Line Speeds: Bare Drum 390 ft/min (119 m/min)
 Full Drum 1,260 ft/min (984 m/min)
 Cable Size: 4000 ft (975 m) X 3/8 in

Feed System

Feed Travel: 11.5 ft (3.5m)
 Feed Speeds: Fast and Slow with Variable control
 Thrust: 15,000 lb (6800 kg)
 Pull: 30,000 lb (13,600 kg)

Power Unit

Mfg: 1 - Cummins
 Power: 175 hp (196 KW)
 RPM: 1,800
 Engine Type: 6 cyl. Diesel Turbocharged/after cooled c/w clutch
 Cooling: Water

Hydraulic System

Primary Pump: 3,500 psi - 45.6 gpm (24.3 MPa - 173 lpm)
 Secondary Pump: 1,500 psi - 12.5 gpm (10.3 MPa - 47.3 lpm)
 Auxiliary Pump: 3,000 psi - 13.4 gpm (20.8 MPa - 50.7 lpm)

Drillhead and Spindle Speeds

Power: Hydraulic Motor - Variable speed/reversible
 Final Drive: HV Chain drive in oil bath - 2.5 ratio
 Spindle: 4-5/8 in (117 mm)
 Spindle Speeds:

	Gear	Ratio	Speed (rpm)	Torque, ft lb (nm)
1st	6.63:1		130-195	3,2232-2,218 (4,382-3,007)
2nd	3.17:1		270-410	1,545-1,060 (2,095-1,437)
3rd	1.72:1		500-756	839-575 (1,138-780)
4th	1.00:1		867-1,300	468-335 (662-454)

Speed Control: Manual Control from Operator's Station
 Hinged Head: Swing Away

Chuck Assembly

Type: Hydraulic Open, Spring Closed
 Maximum Inside Diameter: 4-5/8 in (117 mm)
 Holding Capacity: 40,000 lb (18,181 kg)

Weight

Rig Weight: 14,000 lb (6,363 kg)
 Recommended Truck GVW: 32,000 lbs (14,545 kg)

Standard Equipment

Dump Mast
 Derrick in Two Sections
 Wireline Speed Control
 Foot Clamp 4-5/8 in (117 mm)
 Hydraulic Slide Control Panel
 Hydraulic Rod Centralizer
 Hydraulic Oil Reservoir Fill Pump and Filtration
 Additional Fuel Filter and Water Separator
 Four Hydraulic Jacks 24 in Stroke

Mud Pump Hydraulic Driven - Standard Equipment

Type: FMC L11 22D
 Max Flow: 72 gpm (272 lpm)
 Max. Pressure: 1000 psi (7 MPa)

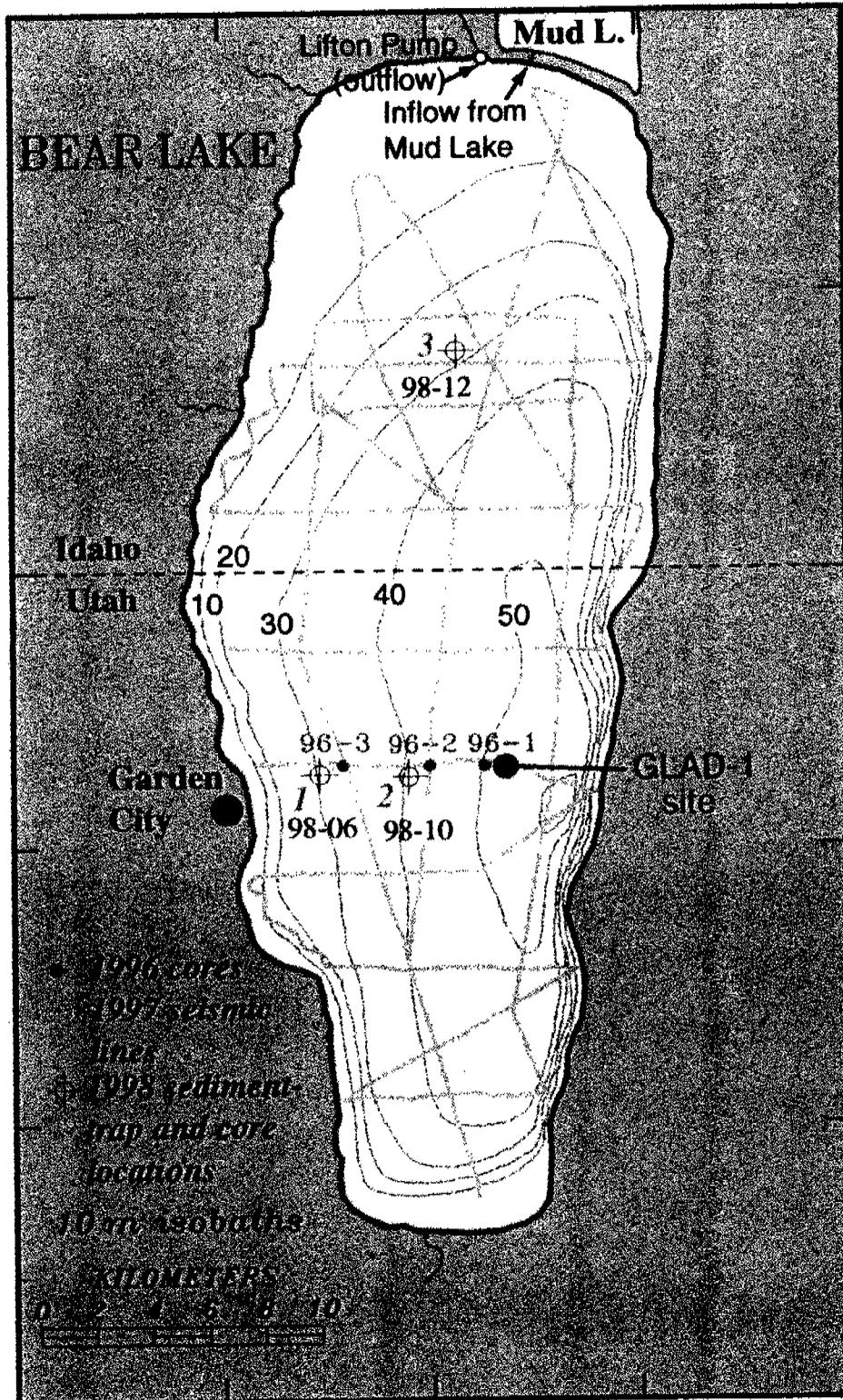
Figure 2

Map of Bear Lake Showing Drill Site

111° 28' W

111° 20' W

111° 12' W



42° 04' N

Idaho

Utah

Garden
City

GLAD-1
site

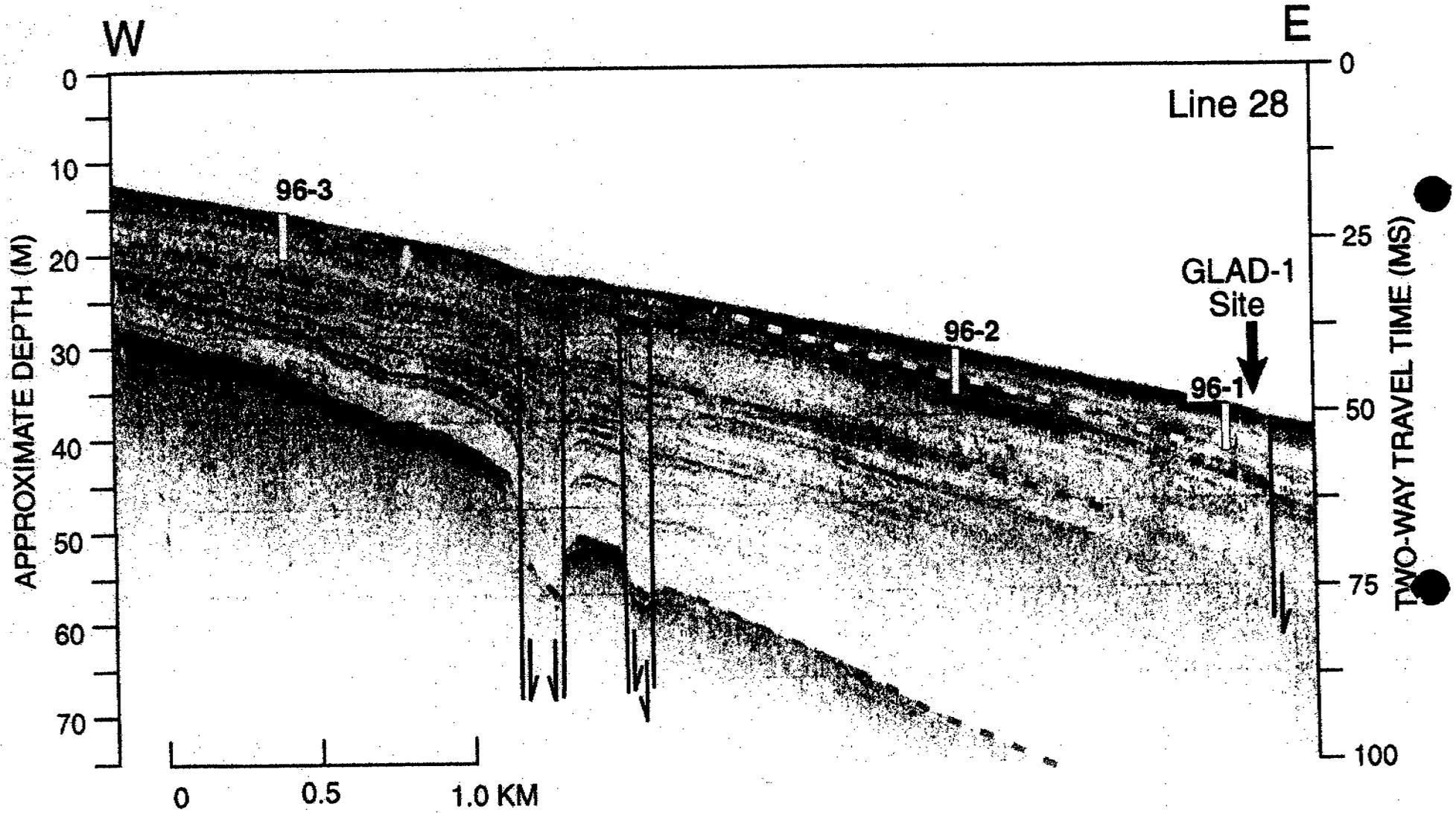
41° 56'

USGS
SAMPLED THESE
WALTER DEAN
303-236-5760
JOE ROSENBAUM
307-236-1304

41° 48'

Figure 3

Seismic Line #28 - Bear Lake



STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

BL-1A

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. Type of Work: DRILL DEEPEN
B. Type of Well: OIL GAS OTHER: Scientific SINGLE ZONE MULTIPLE ZONE

2. Name of Operator: DOSECC, Inc.

3. Address and Telephone Number: 423 Wakara Way, Suite 300, SLC, UT 84108 (801)585-9687

4. Location of Well (Footages)
At Surface: 41°57'06"N 111°18'30"W 41,5706 111.1830
At Proposed Producing Zone: Same as above 41,9150 111.305
-25293.671 *4640190.4
*474,706.33

14. Distance in miles and direction from nearest town or post office: 6.5 miles ENE of Garden City, UT 1252 FNL 490 FEE

15. Distance to nearest property or lease line (feet):
16. Number of acres in lease: N/A
17. Number of acres assigned to this well: N/A

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet): (328')
19. Proposed Depth: 100 meters MAR 14 2000
20. Type of cable tools: Hydraulic Piston Core

21. Elevations (show whether DF, RT, GR, etc.):
22. Approximate date work will start: September 5, 2000

DIV OF OIL, GAS & MINING

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
6"	6"		30' (10 m)	None
4.5"	4.5"		TD (100 m)	None

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

1. Sample with HWT hydraulic piston core to a nominal depth of 10m. The depth will be determined by the presence of a competent lithologic unit that will be capable of supporting a riser pipe.
2. Wash in riser pipe over HWT and tie back to the barge. Riser pipe has a diameter of 6 inches.
3. Sample using appropriate coring techniques to the designed depth. Hole will be vertical.
4. Pull out HWT. Pull out riser.

24. Name & Signature: DL Nielson Dennis L. Nielson Title: Executive Director Date: 3/7/00

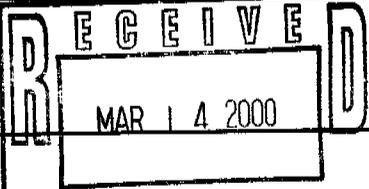
(This space for State use only)
API Number Assigned: 43-033-30044

Approval: Approved by the Utah Division of Oil, Gas and Mining
Date: 5/17/00
By: [Signature]

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. Type of Work: DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. Lease Designation and Serial Number:	
8. Type of Well: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER: Scientific SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. If Indian, Alottee or Tribe Name:	
2. Name of Operator: DOSECC, Inc.		7. Unit Agreement Name:	
3. Address and Telephone Number: 423 Wakara Way, Suite 300, SLC, UT 84108 (801)585-9687		8. Farm or Lease Name:	
4. Location of Well (Footages) At Surface: 41°57'06"N 111°18'30" W At Proposed Producing Zone: Same as above		9. Well Number: BL-1B	
14. Distance in miles and direction from nearest town or post office: 6.5 miles ENE of Garden City, UT		10. Field and Pool, or Wildcat:	
15. Distance to nearest property or lease line (feet):		11. Ctr/Ctr, Section, Township, Range, Meridian:	
16. Number of acres in lease: N/A		12. County: Rich	
17. Proposed Depth: 100 Meters (328')		13. State: UTAH	
18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet):		19. Number of acres assigned to this well: N/A	
20. Rotary or cable tools: Hydraulic Piston Core		21. Elevations (show whether DF, RT, GR, etc.):	
22. Approximate date work will start:		23. PROPOSED CASING AND CEMENTING PROGRAM	



SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
6"	6"		30' (10 m)	None
4.5"	4.5"		TD (100 m)	None

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

1. Sample with HWT hydraulic piston core to a nominal depth of 10 m. The depth will be determined by the presence of a competent lithologic unit that will be capable of supporting a riser pipe.
2. Wash in riser pipe over HWT and tie back to the barge. Riser pipe has a diameter of 6 inches.
3. Sample using appropriate coring techniques to the designed depth. Hole will be vertical.
4. Pull out HWT. Pull out riser.

24. Name & Signature: DL Nielson Dennis L. Nielson Title: Executive Director Date: 3/7/00

(This space for State use only)

API Number Assigned: _____ Approval: _____

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 5/7/00
By: [Signature]

(1193) (See Instructions on Reverse Side)

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 03/14/2000

API NO. ASSIGNED: 43-033-30044

WELL NAME: BL-1A & 1B (CORE TEST)
 OPERATOR: DOSECC INC (N8275)
 CONTACT: DENNIS NIELSON

PHONE NUMBER: 801-585-9687

PROPOSED LOCATION:

NENE 31 140N 060E
 SURFACE: 1252 FNL 0490 FEL
 BOTTOM: 1252 FNL 0490 FEL
 RICH
 WILDCAT (1)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 3-**For records purposes only.*
 LEASE NUMBER: *N/A*
 SURFACE OWNER: *3-state*

PROPOSED FORMATION: LKBDS

RECEIVED AND/OR REVIEWED:

Plat *X Maps*
 Bond: Fed[] Ind[] Sta[] Fee[]
 (No. _____)
 Potash (Y/N)
 Oil Shale (Y/N) *190 - 5 (B)
 Water Permit
 (No. _____)
 RDCC Review (Y/N)
 (Date: 05/11/2000)
 Fee Surf Agreement (Y/N)

LOCATION AND SITING:

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

COMMENTS: _____

STIPULATIONS: _____



Utah Oil Gas and Mining

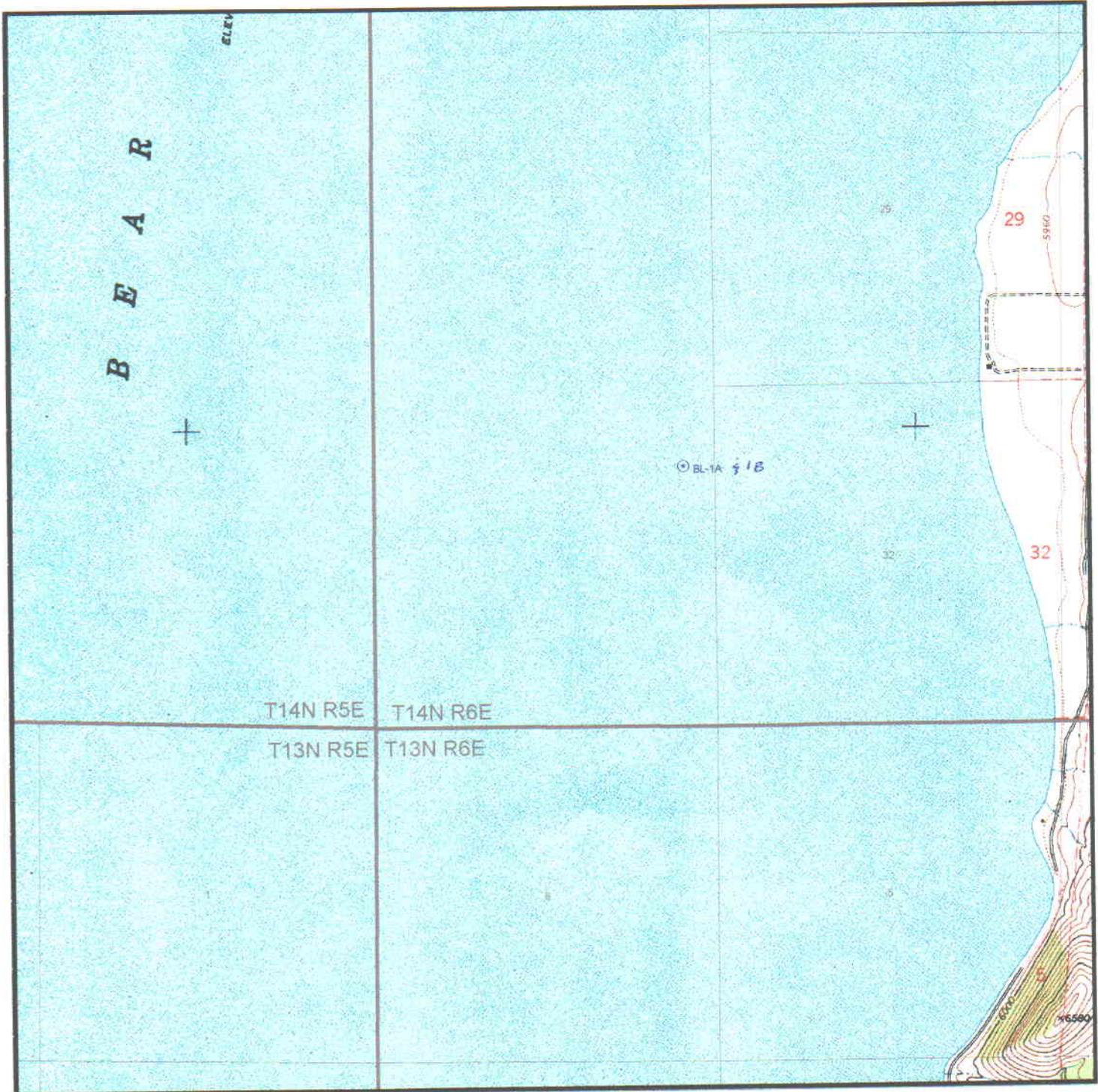
Serving the Industry. Protecting the Environment

OPERATOR: DOSECC INC.. (N)

FIELD: WILDCAT TEST WELL (001)

SEC. 31, T 14 N, R 6 E

COUNTY: RICH TYPE: TEST WELL LAKE SEDIMENTS



PREPARED
DATE: 13-Mar-2000

From: Michael Hebertson
To: Brad Hill, Gil Hunt, Lisha Cordova
Date: Wed, Mar 15, 2000 12:10 PM
Subject: Core drilling in Bear Lake and Great Salt Lake

On March 14, 2000 I met with Karl Kappe of State Lands and Forestry to discuss the nature of the proposed coreing in the Great Salt Lake, and Bear Lake. He asked if we would want to permit the holes, and I indicated that our main interest would be to see that the holes were assigned an API Number, and that some record of their existence was known. I also indicated that we might be interested in the barge construction to see how pollutants might be ocntained but that was about all.

I have since also spoken with Dennis Nielson and found that they intend to take two cores at each location, and that the holes may be offset as much as 10-15 feet. however I do not see any need to permit each individual hole and thereby have 10 permits out there. since all the drilling will be done in lake bed sediments (LKBDS) which will no doubt slough in afterwards there will be little trace if any of the activiy once it is completed. I told Dennis that our interest in the project was only for the information which people might come to us for once the information is made public.

Karl, has agreed that he will take the project to the GSL management board and file with the RDCC folks to notice the project and work through the approval process.

K. Michael Hebertson

March 15, 2000

APINUMBER	SECTION	TOWNSHIP	RANGE	WELL_NAME	WELL_STAT	FEET_N_S	DIR_N_S	FEET_E_W	DIR_E_W	UTM_EAST	UTM_NORTH	COMPANY
TS01711190	16.00	31.00	16.00	STRAT TEST #4	DRL	850.00	FNL	1,750.00	FEL	573,473.00	4,215,661.00	ALTEX OIL COMPANY
TS01721190	2.00	31.00	16.00	STRAT TEST #3	DRL	750.00	FSL	660.00	FEL	575,842.00	4,217,900.00	ALTEX OIL COMPANY
	31.00	14.00 <i>H</i>	6.00 <i>F</i>	BL-1A & BL-1B	DRL	1,252.00	FNL	490.00	FEL	474,706.33	4,640,170.40	DOSECC INC
	12.00	4.00 <i>M</i>	5.00 <i>W</i>	GSL-1A & 1B	DRL	1,140.00	FSL	2,029.00	FEL	385,873.30	4,549,388.80	DOSECC INC.
	12.00	4.00 <i>H</i>	5.00 <i>W</i>	GSL-2A & 2B	DRL	1,467.00	FSL	1,483.00	FEL	386,042.90	4,549,489.45	DOSECC INC
	24.00	2.00 <i>M</i>	4.00 <i>W</i>	GSL-3A & 3B	DRL	2,083.00	FSL	601.00	FEL	395,455.05	4,527,242.17	DOSECC INC.
	13.00	4.00 <i>M</i>	8.00 <i>W</i>	GSL-4A & 4B	DRL	1,393.00	FNL	1,643.00	FEL	357,990.86	4,549,191.40	DOSECC INC.

Utah!

KARL KAPPE

Division of Forestry, Fire and State Lands
1594 West North Temple, Suite 3520
Box 145703
Salt Lake City, UT 84114-5703
801-538-5555



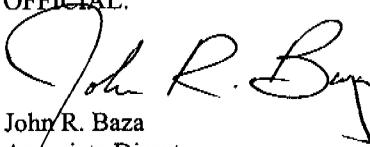
From: Pam Grubaugh-Littig
To: Wright, Carolyn
Date: Friday, March 31, 2000 4:39:33 PM
Subject: Fwd: DOSECC (revised)

Carolyn, here is the application for RDCC review for drilling on the Great Salt Lake and at Bear Lake. We are requesting a 45 day comment period for this action. Dennis Nielson, DOSECC, will give a presentation at the April 11 to apprise RDCC of this requested action. DOGM is the lead agency. On the notice it states who can be called...but if you are unable to contact any of them, please call me. Thank you.

CC: Baza, John, Braxton, Lowell, Ed Storey, Hunt, G...

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

-
1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801
2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)
-
3. APPROXIMATE DATE PROJECT WILL START:
August - September, 2000
-
4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Bear River AOG
-
5. TYPE OF ACTION: Lease Permit License Land Acquisition
 Land Sale Land Exchange Other _____
-
6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill
-
7. DESCRIPTION:
DOSECC, Inc. proposes to drill core holes in Bear Lake known as **BL-1A** and **BL-1B** for scientific core samples. Staging area for this drilling is Bear Lake State Park Marina. Data will be proprietary for six months, then public. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence. Division of Forestry, Fire and State Lands will issue a right of entry for this operation.
-
8. LAND AFFECTED (site location map required) (indicate county)

41° 57' 06" N 111° 18' 30" W, Section 31, Township 14 North, Range 6 East, Rich County, Utah
-
9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
No
-
10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Minor impact is anticipated because of the shallow drilling depths and limited time needed for drilling. Proposed depth of hole is a maximum of 100m (328').
-
11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE: Mike Hebertson (DOGM) 538-5333
-
12. FOR FURTHER INFORMATION, CONTACT:
Gil Hunt (DOGM) 538-5297
Karl Kappe (Forestry, Fire & State Lands) 538-5495
13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:

John R. Baza
Associate Director
PHONE: 538-5334 DATE: March 31, 2000
-

RDCC Agenda

April 11, 2000

3

13. UT000324-030

Trust Lands Administration/Kane, Iron Counties: Cedar City Industrial Exchange (Sec. 16, T39S, R9W). Comments due 4/17/00.

14. UT000403-010

*4-5-2000 Carolyn Wright - RDCC notified of correction.
5-15-2000 Correction's brought up in RDCC meeting - no official change made to agenda. - Jc*

Division of Oil, Gas and Mining/Davis & Box Elder County: Application for Permit to Drill - proposal to drill core holes in the Great Salt Lake (Sec. 12, T4N, R5W; Sec. 13, T4 N, R8W). Comments due 5/11/00. & Sec. 24, 24, 4W - Davis

15. UT000403-020

Division of Oil, Gas and Mining/Rich County: Application for Permit to Drill - proposal to drill core holes in Bear Lake (Sec. 31, T14N, R6E). Comments due 5/11/00.

B. Federal

16. UT000324-050

USDA/Forest Service/DOI/BLM/Sanpete County: Manti La Sal National Forest/Price Field Office - Flat Canyon Coal Lease Track UTU-77114 Notice of Intent to Prepare an Environmental Impact Statement. Federal Register Notice dated 3/17/00, page 14523. Comments due 4/11/00.

17. UT000327-010

DOI/BLM/Uintah County: Vernal Field Office - Proposed Power Site Revocation (UTU-76946). Comments due 4/20/00.

18. UT000330-020

USDA/Forest Service - Uintah National Forest: Contamination of North Fork of American Fork River of heavy metals being release at mine and mill sites. Comments due 4/23/00.

19. UT000330-030

USDA/Forest Service - Fishlake National Forest: Integrated pest management - noxious weeds - scoping. Comments due 4/21/00.

May 5, 2000

TO: Dave Morrow, Deputy Director

FROM: Garth Taylor, Park Manager, Antelope Island

SUBJECT: Drilling Projects

On April 10th John Sullivan and myself met with David Dinter, Marshall Pardey, and Dennis Nielson all associated with the DOSECC, Inc. project. They are planning several drilling sites in Great Salt Lake during August 2000. The meeting revolved around how Antelope Island could assist them in setting the drilling rig and transport of personnel to and from the sites during said time. A similar project was completed a couple of years ago and computerized data retrieved help detail faults in the lake. The previous project lasted two weeks. Impacts to park operation were minimal, utilizing one boat and one ranger.

As the meeting progressed park management concerns were: 1) dates of the project (specific dates in marina and on the lake); 2) times (times during the day for transport); and 3) search and rescue (for medical or inclement weather). They indicated it would take three days to fabricate barge in marina. Start on a Monday and launch before weekend. Once out on the lake the barge will be anchored in said sites for drilling. Personnel transport would entail morning and evening times, probably on 12 hour shifts. S & R for emergencies could be monitored by cell and Davis dispatch.

As this project started to come together last year, Dave Dinter made contact with the park for an idea on costs for park boat utilization. At that time I indicated state park fee schedule of \$400 per day. Again, before a meeting set in Minneapolis Dave contacted me in late March to reassure our previous \$400 price. Until the actual meeting mentioned above I was unclear of the size and scope of the project. This will be a major commitment for Antelope Island to assist this project. With the park being understaffed and time of year I mentioned DWR as a possible partner. The Great Salt Lake Ecosystem project, managed by Clay Perschon, could possibly assist with transport. It is my understanding they have contacted Clay.

I don't foresee an impact to our marina because of limited space. There is ample room

for them to setup a crane and place the barge in the marina north of the current boat ramp. Towing and setting the large barge could be another story. Depending on displacement, weight and size the park's 27' Boston Whaler could have it's hands full. Another possible alternative could be GSL's 30' boat. Transport of personnel is still the great unknown. I asked for a detailed outline of times and dates for the project. The project duration is scheduled to last the entire month of August. I have not yet received this information. I did not commit to anything because there were so many unanswered details. After I receive their proposed schedule we would again meet and further negotiate details.

I have no specific comments on drilling in GSL that would be a DFFSL issue.

CC: Jim Harland, Region Manger, Northwest Region

From: Garth Taylor
To: Dave MORROW, Jamie Dalton, Wes Johnson
Date: 5/8/00 12:12PM
Subject: Re: Drilling Projects at Bear Lake/Antelope Island

This info is in response from your previous request, my comments on the drilling project.
Please see attached! And call if you need further information.

Wes, I guess you are coordinating the division response, once Eldon sends his in.....? Talk with Dave for appropriate persons to receive.

GT

>>> Dave MORROW 04/27 3:35 PM >>>
Dear Eldon, Garth,

Previously I sent you both a memo on the drilling projects in your respective marinas . I know Eldon was not able to attend the information meetings, and voice his concerns. I'm not sure if Garth was able to voice any concerns at the RDCC meeting. The 45-day comment period will end May 26.

I would like you to draft your comments and send your draft to Kathy so we can develop a coordinated division response to the Division of Oil, Gas and Mining. **Please have your comments to Kathy no later than May 19, 2000.** Please be as specific as you possibly can with alternative dates, drilling sites or other concerns you may have. If you have any questions, please call.
Thanks, Dave

CC: Clay Perschon, Karl Kappe



State of Utah

GOVERNOR'S OFFICE OF PLANNING AND BUDGET
Resource Development Coordinating Committee



Michael O. Leavitt
Governor

Brad T. Barber
State Planning Coordinator

James L. Dykmann
Committee Chairman

John A. Harja
Executive Director

116 State Capitol Building
Salt Lake City, Utah 84114
(801) 538-1027
Fax: (801) 538-1547

May 19, 2000

Gil Hunt
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

SUBJECT: Application for Permit to Drill - proposal to drill core holes in Bear Lake
State Identification Number: UT000403-020

Dear Mr. Hunt:

The Resource Development Coordinating Committee (RDCC), representing the State of Utah, has reviewed this proposal and has no comments at this time.

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Utah State Clearinghouse at the above address or call Carolyn Wright at (801) 538-1535 or John Harja at (801) 538-1559.

Sincerely,

BTB Brad T. Barber
State Planning Coordinator

BTB/ar

RECEIVED

MAY 23 2000

DIVISION OF
OIL, GAS AND MINING

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)

6/06/00

PRODUCER

RED A. MORETON & CO.
 P. O. Box 58139
 Salt Lake City UT 84158-0139
 (801) 531-1234

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

- COMPANY
A Gen Star Indemnity
- COMPANY
B
- COMPANY
C
- COMPANY
D

INSURED

DOSECC, INC.
 Attn: Dennis Nielson
 423 Wakara Way #300
 Salt Lake City, UT 84108

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY	1Y6358795	6/25/99	6/25/00	GENERAL AGGREGATE \$ 2,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG \$ 1,000,000
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				PERSONAL & ADV INJURY \$ 1,000,000
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE \$ 1,000,000
	\$7,500 Ded Per				FIRE DAMAGE (Any one fire) \$ 50,000
	Claim				MED EXP (Any one person) \$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT \$
	<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident) \$
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE \$
	<input type="checkbox"/> HIRED AUTOS				
	<input type="checkbox"/> NON-OWNED AUTOS				
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$
	<input type="checkbox"/> ANY AUTO				OTHER THAN AUTO ONLY: \$
					EACH ACCIDENT \$
					AGGREGATE \$
	EXCESS LIABILITY				EACH OCCURRENCE \$
	<input type="checkbox"/> UMBRELLA FORM				AGGREGATE \$
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM				\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATUTORY LIMITS OTH-ER
	THE PROPRIETOR/PARTNERS/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL				EL EACH ACCIDENT \$
					EL DISEASE-POLICY LIMIT \$
					EL DISEASE-EA EMPLOYEE \$
	OTHER				

DESCRIPTION OF OPERATIONS, LOCATIONS, VEHICLES/SPECIAL ITEMS

Verification of Insurance

CERTIFICATE HOLDER

Department of Natural Resources
 1594 West North Temple #3710
 Salt Lake City, UT 84116

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

790035 JA



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

June 7, 2000

DOSECC, Inc.
423 Wakara Way, Suite 300
Salt Lake City, UT 84108

Re: BL Core Hole #1A and 1B, 1252' FNL, 490' FEL, NE NE Section 31, T. 14 North,
R. 6 East, Rich County, Utah

Gentlemen:

Pursuant to the authorities of the Great Salt Lake Board of Directors, the Utah Division of Wildlife Resources, the Utah Division of Oil, Gas and Mining, the Utah Division of Parks and Recreation and the Utah Division of Forestry, Fire and State Lands, and subject to the enclosed Conditions of Approval, approval to drill the referenced test hole for geotechnical soil core sampling is granted.

This approval will 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. The API identification number assigned to this test hole is 43-033-30044.

Sincerely,

John F. Kimball, Jr., Director
Utah Division of Wildlife Resources

Lowell P. Braxton, Director
Utah Division of Oil, Gas & Mining

Courtland C. Nelson, Director
Utah Division of Parks & Recreation

Art DuFault, Director,
Utah Division of Forestry, Fire & State Lands

er

Enclosures

cc: Rich County Assessor
Larry Anderson, Division of Water Resources

Operator: DOSECC, Inc.

Hole Name & Number: BL #1A & 1B

API Number: 43-033-30044

Location: NE NE Sec. 31 T. 14 North R. 6 East

Conditions of Approval

1. The operator is generally required to comply 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.
2. The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
 - 24 hours prior to cementing or testing casing
 - 24 hours prior to testing blowout prevention equipment
 - 24 hours prior to spudding the well
 - within 24 hours of any emergency changes made to the approved drilling program
 - prior to commencing operations to plug and abandon the well

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

- Dan Jarvis at (801) 538-5338
- Robert Krueger at (801) 538-5274 (plugging)
- Carol Daniels at (801) 538-5284 (spud)

3. All required reports, forms and submittals will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to the Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.
4. The operator shall comply with the State of Utah Antiquities Act which forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during operations, the operator is required to immediately suspend all operations and inform the Division of Forestry, Fire and State Lands and the Division of State History of the discovery of such remains.
5. The operator will contact the Bear Lake State Park Manager regarding a special use permit for use of the marina. Any other special requirements of drilling operations and use of state park facilities will be coordinated through the respective park manager.
6. The operator will comply with standard navigational and boating safety requirements as specified by the respective state park manager.

Page Two
DOSECC, Inc. Conditions of Approval 5
June 7, 2000

7. The operator shall maintain general liability insurance in an aggregate amount of \$2,000,000 for the duration of drilling operations as evidenced by the certificate of Liability dated June 6, 2000, delivered to the Department of Natural Resources. Additionally, such liability insurance shall be renewed as necessary in order to maintain the validity of this approval.

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:
GLAD1-BL00, Site 1

9. API NUMBER:
4303330044

10. FIELD AND POOL, OR WILDCAT:

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
NENE 31 14N 6E

12. COUNTY: **Rich** 13. STATE: **UTAH**

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER **Sediment Sample**

b. TYPE OF WORK: NEW HORIZ DEEP- RE- DIFF.

2. NAME OF OPERATOR:
DOSECC, Inc

3. ADDRESS OF OPERATOR: **PO Box 58857** CITY **Salt Lake City** STATE **Ut** ZIP **84158** PHONE NUMBER: **(801) 585-6855**

4. LOCATION OF WELL (FOOTAGES):
41 - 57.105' N, 111 - 18.492' W

AT TOP PRODUCING INTERVAL REPORTED BELOW:

AT TOTAL DEPTH: **41 - 57.105' N, 111 - 18.492' W**

14. DATE SPURRED: **9/12/2000** 15. DATE T.D. REACHED: **9/16/2000** 16. DATE COMPLETED: **9/17/2000** ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
51.2 m below water sui

18. TOTAL DEPTH: MD **100** 19. PLUG BACK T.D.: MD TVD **120** 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):
None

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 (#/L)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

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

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A)								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"/>

27. PERFORATION RECORD

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

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

29. ENCLOSED ATTACHMENTS: ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS OTHER: _____

30. WELL STATUS: **Abandoned**

RECEIVED

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)

35. ADDITIONAL REMARKS (Include plugging procedure)

All measurements in meters

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

NAME (PLEASE PRINT) Dennis L. Nielson TITLE Executive Director of DOSECC
 SIGNATURE *DL Nielson* DATE 10/11/2000

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- 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
 1594 West North Temple, Suite 1210
 Box 145801
 Salt Lake City, Utah 84114-5801

Phone: 801-538-5340
 Fax: 801-359-3940

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OCT 13 2000

DIVISION OF
 OIL, GAS AND MINING

SITE SUMMARY, GLAD1-BL00, SITE 1

Site: GLAD1-BL00-1, Holes A, B, C, D, E

Position: Eastern side of Bear Lake, Utah, 41° 57.105' N, 111° 18.492' W

Water Depth: 51.16 m

Sediment Thickness:

Penetration Depth:

Hole A: 2.42 mblf (Core catcher failure, 0.47 m recovery)

Hole B: 2.42 mblf (Core lost while recovering)

Hole C: 2.90 mblf

Hole D: 100.47 mblf

Hole E: 120.65 mblf

Seismic Coverage: Line 28

Objectives: The objectives of GLAD-1-BL00-1 were to:

Test operations, procedures, and tools of the GLAD800 rig in deeper water before deploying GLAD800 in deeper lakes.

Core the top 100 m at two holes to recover a continuous record to examine paleoclimate cycles and their controversial link with Bonneville stages (Science Module 2).

Logging and Downhole: None

Nature Of Sediment: Silty clay

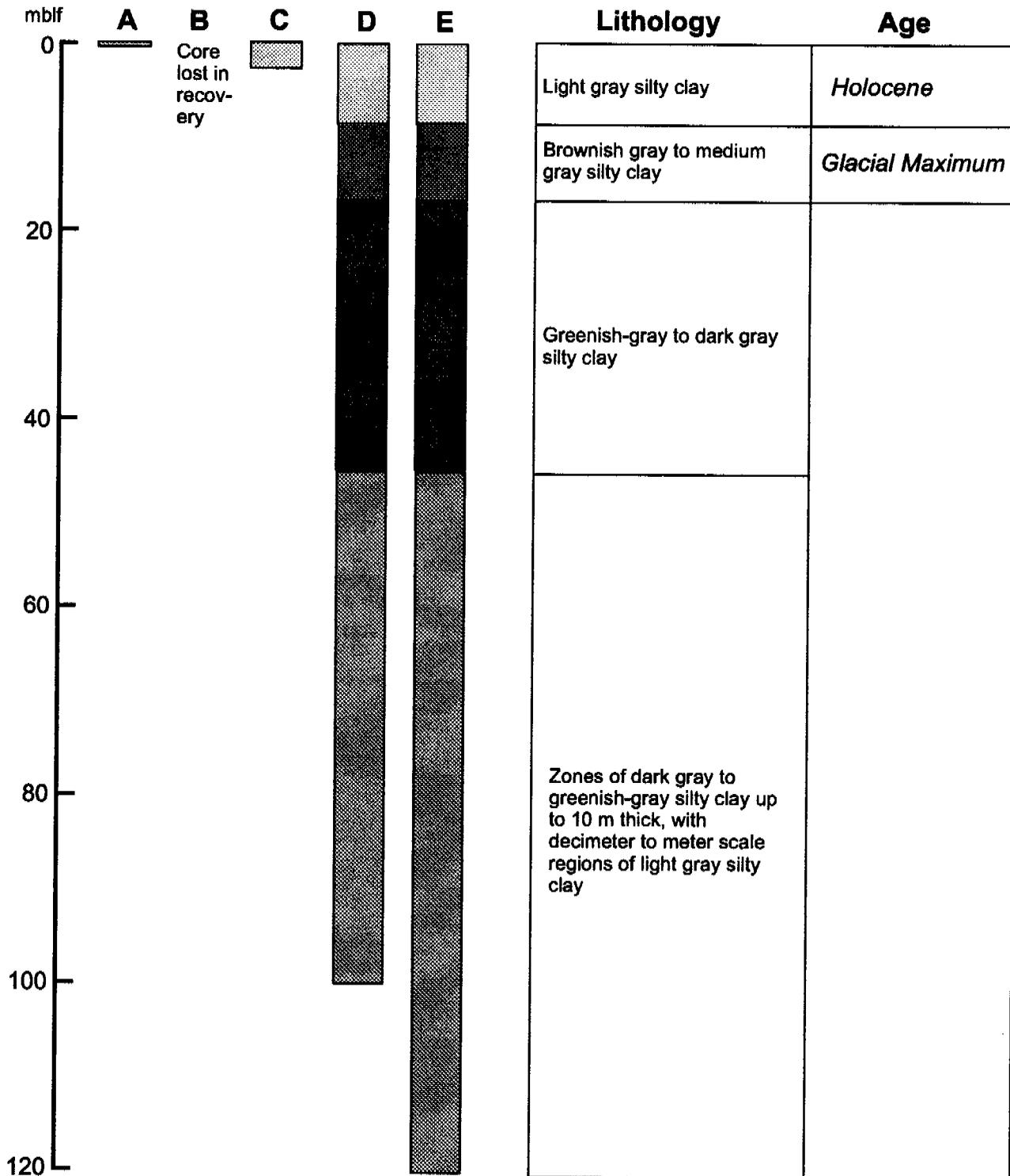
Safety: No hazardous environmental conditions anticipated.

RECEIVED

OCT 13 2000

DIVISION OF
OIL, GAS AND MINING

Field Summary of Site GLAD1-BL00-1



RECEIVED

OCT 13 2003

DIVISION OF
OIL, GAS AND MINING