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LDG 15-8

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
P O BOX 2088  
SANTA FE, NEW MEXICO 87301

Form G-102  
Revised 10-1-10  
Revised 10-1-13

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Operator	
Land Office	

APPLICATION FOR PERMIT TO DRILL, DEEPEN,  
OR PLUG BACK—GEOTHERMAL RESOURCES WELL

3. Indicate Type of Lease  
STATE ☐ REC ☐  
5. State Lease No.

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐  
b. Type of Well Geothermal Producer ☐ Temp Observation ☐  
Low Temp Thermal ☐ Injection/Disposal ☒

7. Unit Agreement Name  
None  
8. Farm or Lease Name  
Fed. NM-34790

2. Name of Operator  
Lightning Dock Geothermal HI-01, LLC  
3. Address of Operator  
Kearns Bldg. 136 S. Main Street, Ste. 600, Salt Lake City, UT 84104  
4. Location of Well UNIT LETTER L LOCATED 345 FEET FROM THE West LINE  
AND 2141 FEET FROM THE Southline of Sec. 8 TWP. 25 South RGE. 19 West N.M.M.

9. Well No.  
LDG 15-8  
10. Field and Pool, or Wildcat  
Lightning Dock KGRA

11. County  
Hidalgo

19. Proposed Depth 1,500 feet	19A. Formation Quaternary alluvium Tertiary volcanic	20. Rotary or C.T. Mud Rotary
21. Elevations (Show whether DF, RT, etc.) 4230 GR	21A. Kind & Status Plug Round	21B. Drilling Contractor TBD
		22. Approx. Date Work will start 7/1/2015

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12.25"	9.625"	36#	90'	6	GR
8.5"	7"	23#	150'	20	GR
6.125"	5"	11.5#	1,500'	None	1400'

Drill a geothermal injection well on Federal lease NM-34790.

Please see attached location plat Form G-102.

Please see attached drilling handbook prepared by Capuano Engineering Company.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposed to deepen or plug back, give data on present productive zone and proposed new productive zone. Give blowout prevention program, if any.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed David W. Farney, P.E. Title Agent for Lightning Dock Geothermal HI-01, LLC Date 6/1/2015  
(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

## GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section.

Operator Lightning Dock Geothermal HI-01, LLC			Lease Fed. Geothermal NM-34790		Well No. LDG 15-8
Unit Letter L	Section 8	Township 25 South	Range 19 West	County Hidalgo	
Actual Footage Location of Well: 345 feet from the West line and 2141 feet from the South line					
Ground Level Elev. 4230	Producing Formation NA	Pool NA		Dedicated Acreage: 10 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.

## CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

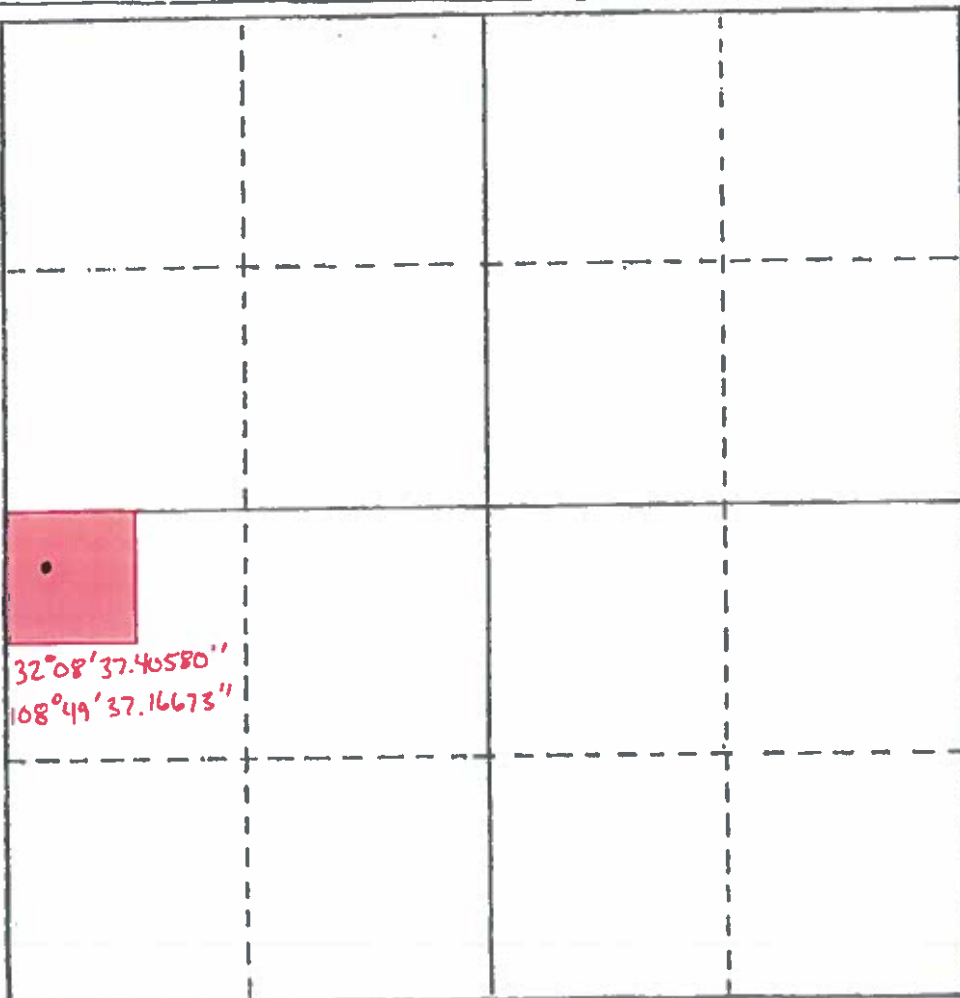
Name David Janney, PG

Position  
Agent for Lightning Dock Geothermal HI-01, LLCCompany  
Geo-Science Solutions, LLCDate  
May 29, 2015

I hereby certify that the well location shown on this plat was plotted from field notes or actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

5/29/15  
Date Surveyed  
David A. Allsup  
Registered Professional Engineer  
and/or Land Surveyor

Certificate No.



0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000

## OIL CONSERVATION DIVISION

Form G-104  
Adopted 10-1-74  
Revised 10-1-78STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501CERTIFICATE OF COMPLIANCE  
AND AUTHORIZATION TO PRODUCE  
GEOTHERMAL RESOURCES

## OWNER OR OPERATOR

Name Lightning Dock Geothermal HI-01, LLCAddress 136 S. Main Street, Ste. 600, Salt Lake City, UT 84101

## TYPE OF WELL

Geothermal Producer ☐Low-Temperature Thermal ☐Injection/Disposal ☒

## REASON FOR FILING

New Well ☒Recompletion ☐Change in Ownership ☐Designation of Purchaser ☐Other (Please Explain) ☐

## DESCRIPTION OF WELL

Lease Name Not ApplicableWell No. LDG-15-8Name of Reservoir Lightning DockKind of Lease  
(Fee, Fed. or State) FederalLease  
Number NM-34790

## LOCATION

Unit Letter L ; 2141 feet from the South line and  
345 feet from the West line ofSection 8 Township 25S Range 19W  
County Hildago

## TYPE OF PRODUCT

Dry

Steam and

Steam Water Water

Low Temp.

Thermal Water

## DESIGNATION OF PURCHASER OF PRODUCT

Name of Purchaser Public Service Company of New MexicoAddress of Purchaser 414 Silver Ave. Suite 4 Albuquerque, NM 87102Product Will Be Used For Residential and commercial power

## CERTIFICATE OF COMPLIANCE

I hereby certify that all rules and regulations concerning geothermal resources wells in the State of New Mexico, as promulgated by the Oil Conservation Division of New Mexico, have been complied with, with respect to the subject well, and that the information given above is true and complete to the best of my knowledge and belief.

Signed David H. Jansky, PE Position Agent For Lightning Dock  
Geothermal HI-01, LLC Date 6/2/2015  
Approved \_\_\_\_\_ Position \_\_\_\_\_ Date \_\_\_\_\_

APPLICATION TO PLACE WELL ON INJECTION-GEOTHERMAL RESOURCES AREA

Operator <b>Lightning Dock Geothermal HI-01, LLC</b>		Address <b>136 S. Main Street, Suite 600 Salt Lake City, UT 84101</b>	
Lease Name <b>Federal NM-34790</b>	Well No. <b>15-8</b>	Field <b>Lightning Dock</b>	County <b>Hidalgo</b>
Location Unit Letter <b>L</b> Well is Located <b>2141</b> Feet From The <b>South</b> Line And <b>345</b> Feet From The <b>West</b> Line, Section <b>8</b> Township <b>25S</b> Range <b>19W</b> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
Conductor Pipe	9.625"	90'	6 cy	GR	flow to surface
Surface Casing	7"	150'	20	GR	flow to surface
Long String	5" liner	1,500'	None	None	NA
Tubing			Name, Model and Depth of Tubing Packer <b>NA</b>		
Name of Proposed Injection Formation <b>Quaternary alluvium/Tertiary volcanic rocks</b>			Top of Formation <b>150'</b>		Bottom of Formation <b>1,500'</b>
Is Injection Through Tubing, Casing, or Annulus? <b>5" liner</b>		Perforations or Open Hole? <b>slotted liner</b>		Proposed Interval(s) of Injection <b>150'-1,500'</b>	
Is This a New Well Drilled For Injection? <b>yes</b>		If Answer is No, For What Purpose was Well Originally Drilled?		Has Well Ever Been Perforated in Any Zone Other Than the Proposed Injection Zone? <b>NA</b>	
List All Such Perforated Intervals and Sacks of Cement used to Seal Off or Squeeze Each <b>Not Applicable</b>					
Depth of Bottom of Deepest Fresh Water Zone in This Area <b>Unknown</b>		Is This Injection for Purpose of Pressure Maintenance or Water Disposal? (See Rules 501 and 502) <b>No, for injection of spent geothermal water</b>			
Anticipated Daily Injection Volume <b>Gallons</b>	Minimum <b>720,000</b>	Maximum <b>1,000,000</b>	Open or Closed Type System <b>Open</b>	Is Injection to be by Gravity or Pressure? <b>Gravity</b>	Approx. Pressure (psi) <b>&lt;100</b>
Answer Yes or No Whether the Following Waters are Mineralized to such a Degree as to be Unfit for Domestic, Stock, Irrigation, or Other General Use—		Water to be Injected <b>No</b>		Natural Water in Injection Zone <b>No</b>	Are Water Analyses Attached? <b>Summary on file with OCD</b>
Name and Address of Surface Owner (or Lessee, if State or Federal Land) <b>Rosette, Inc. P.O. Box 1618 Roswell, NM 88202-1618</b>					
List Names and Addresses of all Operators Within One-Half (1/2) Mile of This Injection Well <b>There are no other geothermal lease owners or operators within one-half mile of the proposed well.</b>					
Have Copies of this Application Been Sent to Each Operator Within One-Half Mile of this Well? <b>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> not applicable</b>					
Are the Following Items Attached to this Application (see Rule 503)		Plat of Area <b>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See G-102</b>		Electrical Log <b>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></b>	
				Diagrammatic Sketch of Well <b>See drilling handbook <input checked="" type="checkbox"/></b>	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

*David W. Ramsey, Jr.*  
(Signature)

**Agent for Lightning Dock Geothermal HI-01, LLC**  
(Title)

**June 1, 2014**

(Date)

NOTE: Should waivers from all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Division will hold the application for a period of 20 days from the date of receipt by the Division's Santa Fe office. If at the end of the 20-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 503.