State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 8705

RECEIVED OCD

District IV

2011 AUG 10 A 10: 37

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Reliant Exploration & Production, LLC. **3700 Kermit Highway** **Odessa, Texas 79764**	251905
	[3] API Number 30 – 021 – 20528

[5] Property Code	[6] Property Name	[6] Well No.
37025	**LIBBY MINERALS LLC 1931**	**8-1-K**

[9] Proposed Pool 1	[10] Proposed Pool 2
Bravo Dome 96010	

[7] Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	**8**	**19 North**	**31 East NMPM**		**1700'**	**South**	**1700'**	**West**	**Harding**

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	19 North	31 East NMPM		2273'	South	1700'	West	Harding

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	C	R	P	4465
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	1984'	TUBB	Reliant	08/15/2011

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
> 100'	> 1000'	> 1000'

Pit: Liner: Synthetic ☒ 20 mils thick Clay ☐ Pit Volume: 850 bbls Drilling Method:

Closed-Loop System ☐ Fresh Water x Brine ☐ Diesel/Oil-based ☐ Gas/Air X

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	36#	700' TVD	300SX	SURFACE
8-3/4"	7"	20#	2312' TMD	280SX	SURFACE

[22] Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHMENTS

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Signature: Vance S Vanderburg

Printed name: Vance S Vanderburg

Title: Manager

E-mail Address: vance@reliantholdingsltd.com

Date: 8/9/11 Phone: 432-362-9206

OIL CONSERVATION DIVISION

Approved by: Ed Martin

Title: DISTRICT SUPERVISOR

Approval Date: 8/16/2011 Expiration Date: 8/16/2013

Conditions of Approval Attached ☐

ATTACHMENT C-101
RELIANT EXPLORATION & PRODUCTION WELL 8-1-K

PROPOSED TVD: 1984'
PROPOSED TMD: 5311'

BOP PROGRAM: 0-700' None
700 – 5311' 9" annular 3000# Ragan Tuaras

Casing: Surface: 9-5/8" OD 32.3# H-40 8rd ST&C new casing set at 700' 12-1/4" hole Centralizers from TD – Surface, every fourth joint

Intermediate 7" OD 26# J55 BT&C new casing set at 2311' 8 ¾ hole.

Production: The horizontal section through the Tubb will be completed open hole.

Cement: Surface – Circulate cement with 300sx class C – additives 2# C45, weight of 12.4# per gallon. Yield 2.14 and 1/8# of Celaflake per sx. Tail Cement 100sx class C 2%CACl with 1/8# per sx Celaflake Yield of 1.32# with weight of 14.8# per gallon

Intermediate- Circulate cement with 280sx class C – additives 2# C45, weight of 12.4# per gallon. Yield 2.14 and 1/8# of Celaflake per sx. Tail Cement 100sx class C 2%CACl with 1/8# per sx Celaflake Yield of 1.32# with weight of 14.8# per gallon

Mud See Attachment

Utilizing Metal Pits with a 20' by 90' by 6' deep reserve lined pit with 20 ply liner.

Mud Program

Reliant Exploration & Production
8-1-K Libby Minerals LLC 1931- 5311' tmd'
Section 10, T19N, R31E
Harding County, New Mexico

0'-750' (Fresh Water - set 9 5/8" casing)
Spud in with fresh water and circulate through the steel pits. Add 1/2-1 sack of Paper after
every connection. Mix Fresh Gel/Fiber Seal pills if lost circulation occurs. Dry drill to casing point if circulation is not established quickly.
VISCOSITY WEIGHT WATER LOSS
28-33 sec/1000cc 8.4-9.3 ppg no control

750'-1100' (fresh water —Gel sweeps)
Jet and clean the steel pits with fresh water. Circulate through the reserve pit after drilling out and use fresh water for volume. Add 1 sack of Lime per/tour for a 9-10 pH. Continue to add 1/2-1 sack of Paper after each connection for seepage. Mix 1 can of PolyVisII (Alcomer 123L) or MF55 slowly at the flow line to help reduce solids and keep the fluid clear at the suction.
VISCOSITY WEIGHT WATER LOSS
28-30 sec/1000cc 8.4-8.6 ppg no control

1100'-1600' (fresh water/gel sweeps)
Go to the steel pits and add 40 sacks of Starch for a lOcc or less water loss at 1100'. This helps eliminate sticking problems. Continue to add Paper after every connection for seepage. Continue to mix 1 sack of Lime per/tour for a 9-10 pH. Sweep the hole if any drag occurs with Fresh Gel sweeps or Polyvis as needed. Add Fresh Gel/Fiber Seal pills from the pre-mix pit if lost circulation occurs. Cement the lost zones if returns are not regained after a couple of Gel/LCM pills.

VISCOSITY	WEIGHT	WATER LOSS
28-30 sec/1000cc	8.4-8.7 ppg	no control

1600'- 2311' TMD'-(Optixan/Pac/Mud system — set 7" casing)
Go back through the reserve pit around 1600', or after drilling the Glorietta, and dump the steel pits. Fill the pits with clean fresh water from the tanks or reserve pit and begin kick off. Treat down the calcium with Soda Ash and add 1 can per/100 barrels of fluid of WC Defoamer. Mix V2 -1 lb. /per/bbl. of Optixan for a 36-45 sec. /1,000cc viscosity. Adjust the viscosity as needed if hole conditions dictate. Optixan is a non-damaging fluid that is used as a viscosifier and filtrate reducer. It also gives the fluid lubricity. Mix small addition of Drillpac LV for an 8-15cc filtrate. Mix 2-5 gallon slugs of Ultra Lube IID to help reduce any excessive torque or drag. Mix through the Paper barrel directly into the

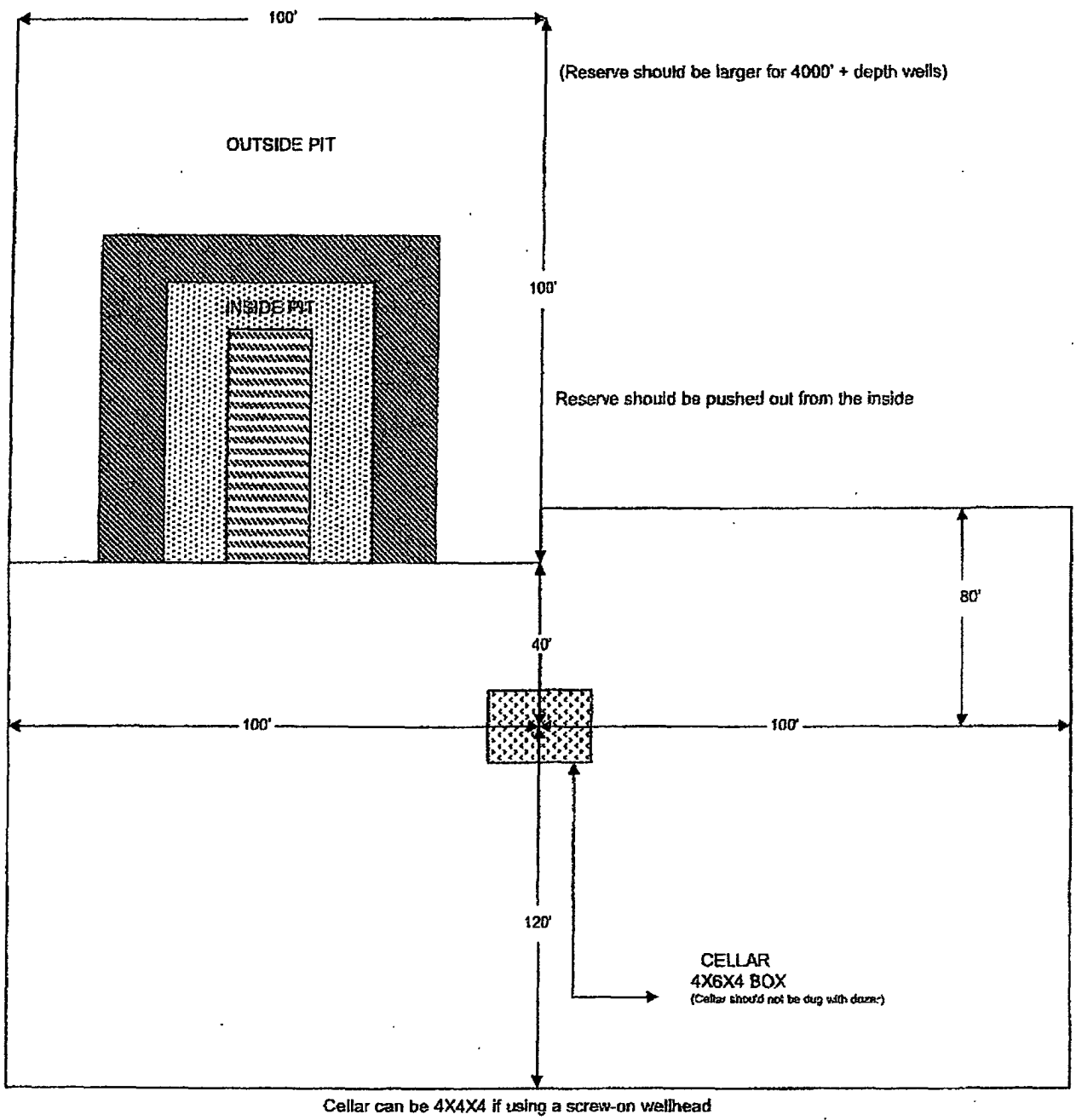
main pump. Spot Graphite or Boxite Drilling Beads in the curve to help sliding if needed. Mix Nut Shell, Mica, or PW Seal to control any losses. Mix 1 can of Myacide for every 100 barrels of circulating fluid for biocide control. Check with the directional driller before mixing any Lost Circulation Material. We recommend a good shale shaker with a 180 mesh screen to help reduce solids. Jet as needed if solids become a problem. Set pipe about 50' into the TUBB.

VISCOSITY	WEIGHT	WATER LOSS
36-45 sec/1000cc	8.6-9.4 ppg	8-15cc control

2300' — 3,500' TMD (Will Drill this interval with air)
Drilling this interval with air should eliminate any formation damage. This would allow the well to be acidized and may eliminate a frac job.

LOCATION SPECIFICATION FOR STEEL PITS

(PICTURE NOT TO SCALE)



Cellar can be 4X4X4 if using a screw-on wellhead

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-021-20528	96010	BRAVO DOME CO_2 GAS

Property Code	Property Name	Well Number
37025	LIBBY MINERALS LLC 1931	8-1-K

OGRID No.	Operator Name	Elevation
251905	RELIANT EXPLORATION & PRODUCTION, LLC.	4465'

Surface Location

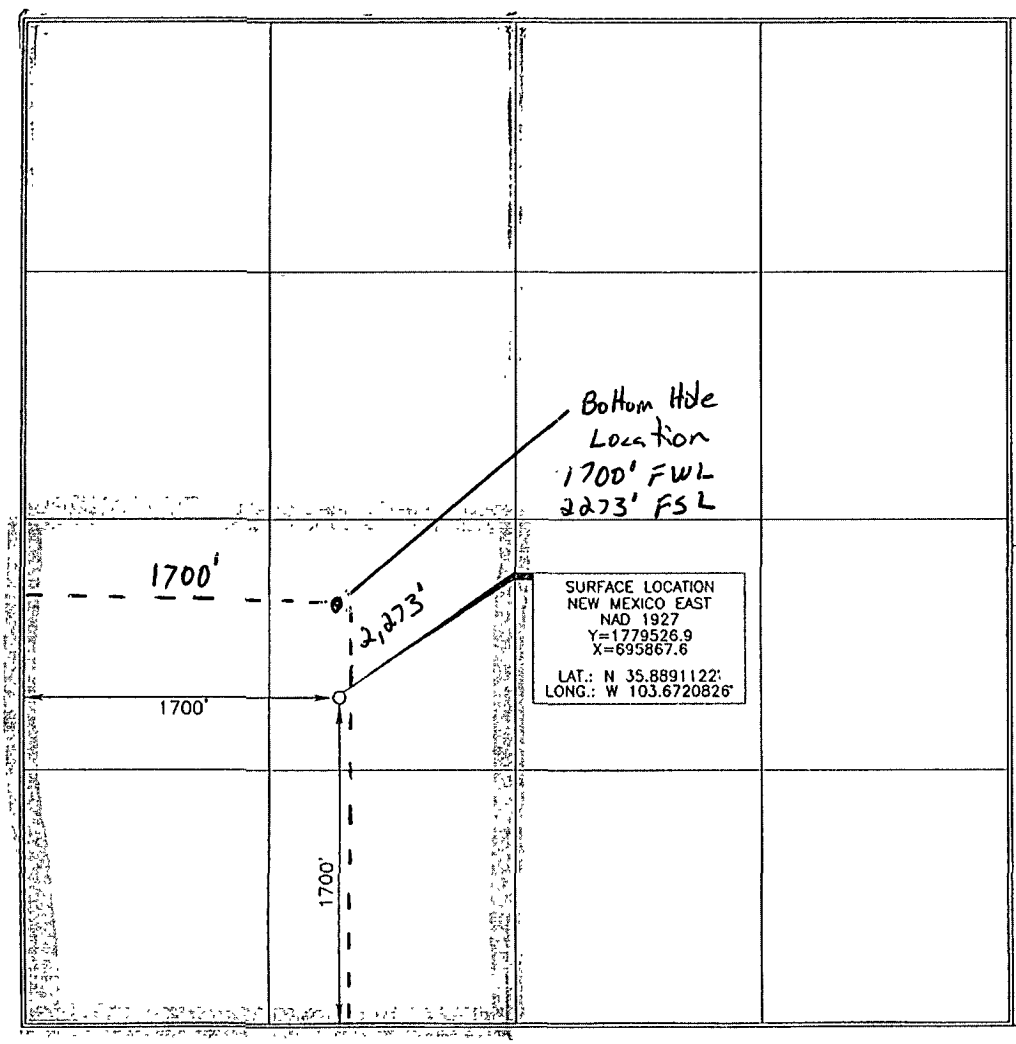
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	19 NORTH	31 EAST, N.M.P.M.		1700'	SOUTH	1700'	WEST	HARDING

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	19 North	31 East N.M.P.M.		2273'	South	1700'	West	Harding

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 8/9/11 Date

Vance Vanderburg
Printed Name

SURVEYOR CERTIFICATION

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

FEBRUARY 13, 2008
Date of Survey

Signature and Seal of Professional Surveyor:

TERRY J. ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 8/22/08
Certificate Number 15079

WO# 071217WL-j (Rev. C) (KA)

Libby Minerals LLC 1931 No. 8-1-K

Geodetic System US State Plane 1927 (Exact solution)
Zone: New Mexico East 3001
System Datum. Mean Sea Level
Refernce to North. Grid
Northing: 1779526.90
Easting. 695867 60
Harding Co., NM

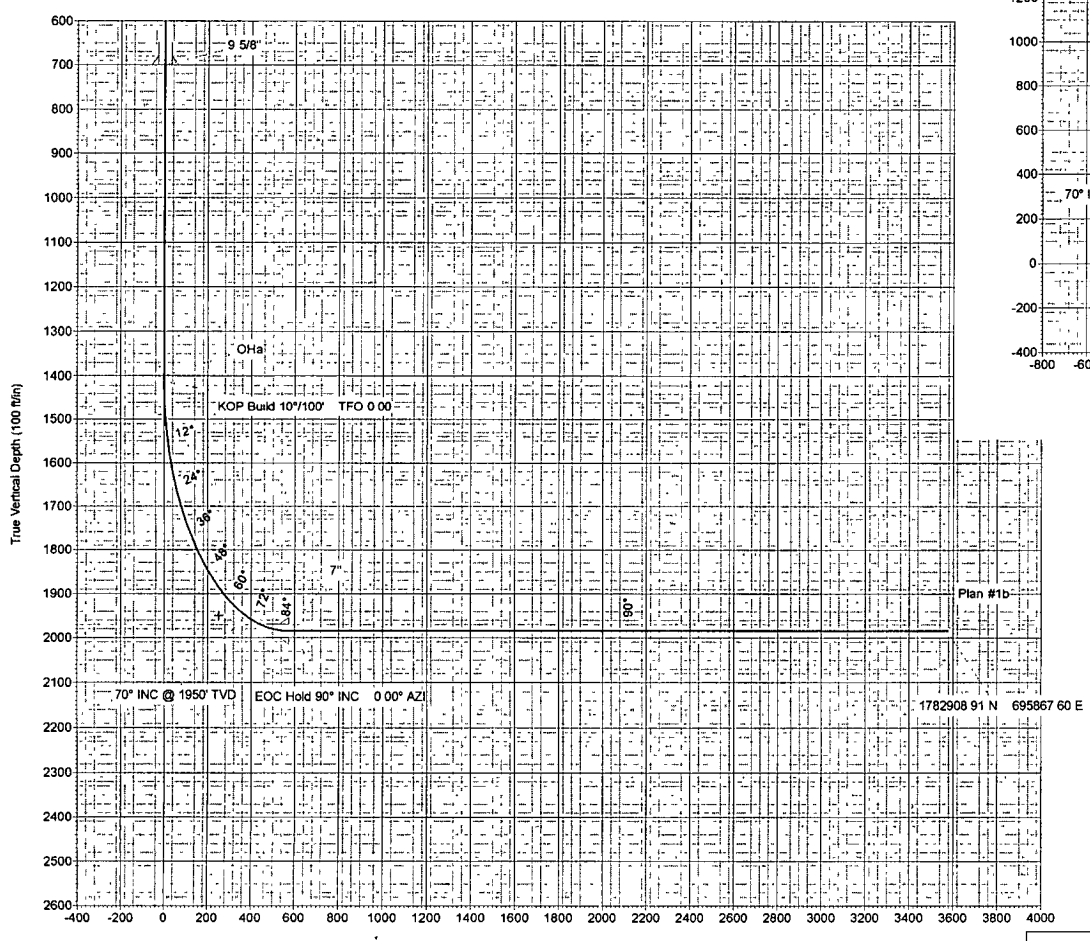
Reliant Exploration & Production LLC

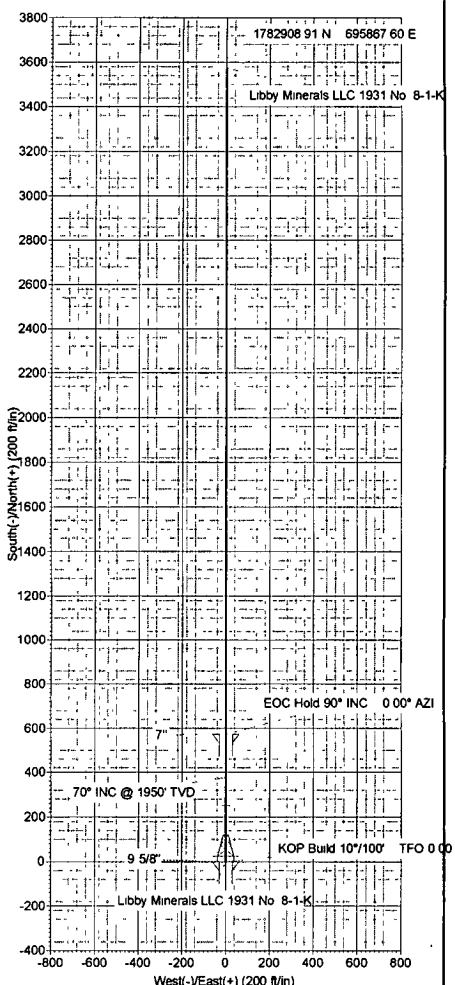
ANNOTATIONS

TVD	MD	Annotation
1411.40	1411 40	KOP Build 10°/100' TFO 0 00
1950 00	2111 65	70° INC @ 1950' TVD
1984.55	2311 65	EOC Hold 90° INC 0 00° AZI
1984 55	5311.65	1782908 91 N 695867 60 E

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Target
1400 00	0 00	0 00	1400 00	0 00	0 00	0 00	0 00	
1411 40	0 00	0 00	1411 40	0 00	0 00	0 00	0 00	
2111 65	70 00	0 00	1950 00	377 13	0 00	10 00	377 13	
2311 65	90 00	0 00	1984 55	573 09	0 00	10 00	573 09	
5311 65	90 00	0 00	1984 55	3573 09	0 00	0.00	3573 09	





Azimuths to Grid North
True North -0 39°
Magnetic North 7 51°
Magnetic Field

Strength 50755 0snT
Dip Angle 63 46°
Date 7/22/2011
Model IGRF2010

Plan Plan #1b (Libby Minerals LLC 1931 No 8-1-K/Lateral #1)
Created By Heather Vannoy Date July 27, 2011

1b

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Reliant Exploration & Production, LLC OGRID #: 251905
Address: 300 North Marienfeld Suite 600 Midland, TX 79701
Facility or well name: Libby Minerals LLC 1931 No. 8-1-K
API Number: 30-021-20528 OCD Permit Number:
U/L or Qtr/Qtr K Section 8 Township 19N Range 31E County: Harding
Center of Proposed Design: Latitude 35.8891122° N Longitude 103.6720826° W NAD: ☒ 1927 ☐ 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☐ Welded ☒ Factory ☐ Other Volume: 850 bbl Dimensions: L 80' x W 80' x D 6'

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: ☐ Welded ☐ Factory ☐ Other

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☒ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No **UNKNOWN**
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method:
- ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Vance Vanderburg Title: Manager

Signature: [signature] Date: 8/9/11

e-mail address: vance@floco2.com Telephone: 432-559-7085

20.
OCD Approval: ☑ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: [signature] **Approval Date:** 8/16/2011

Title: DISTRICT SUPERVISOR **OCD Permit Number:**

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:**

22.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: Disposal Facility Permit Number:

Disposal Facility Name: Disposal Facility Permit Number:

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude Longitude NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Title:

Signature: Date:

e-mail address: Telephone:

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	LIBBY MINERALS LLC 1931	8-1-K

OGRID No.	Operator Name	Elevation
	RELIANT EXPLORATION & PRODUCTION, LLC.	4465'

Surface Location

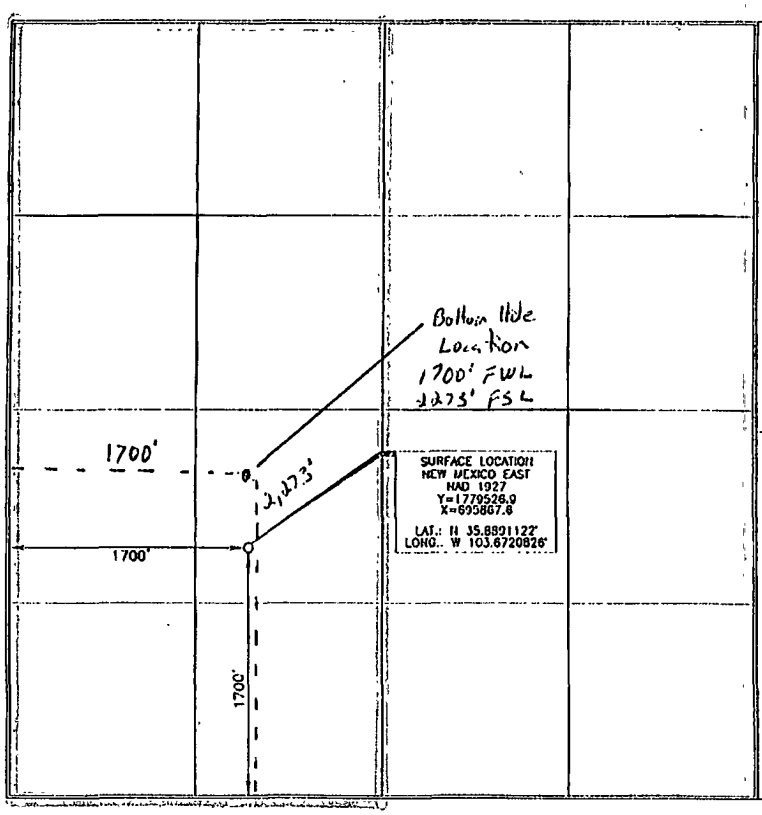
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	19 NORTH	31 EAST, N.M.P.M.		1700'	SOUTH	1700'	WEST	HARDING

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	19 North	31 East N.M.P.M.		2073'	South	1700'	West	Harding

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 8/5/11

Printed Name: Vance Vanderburg

SURVEYOR CERTIFICATION

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

NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

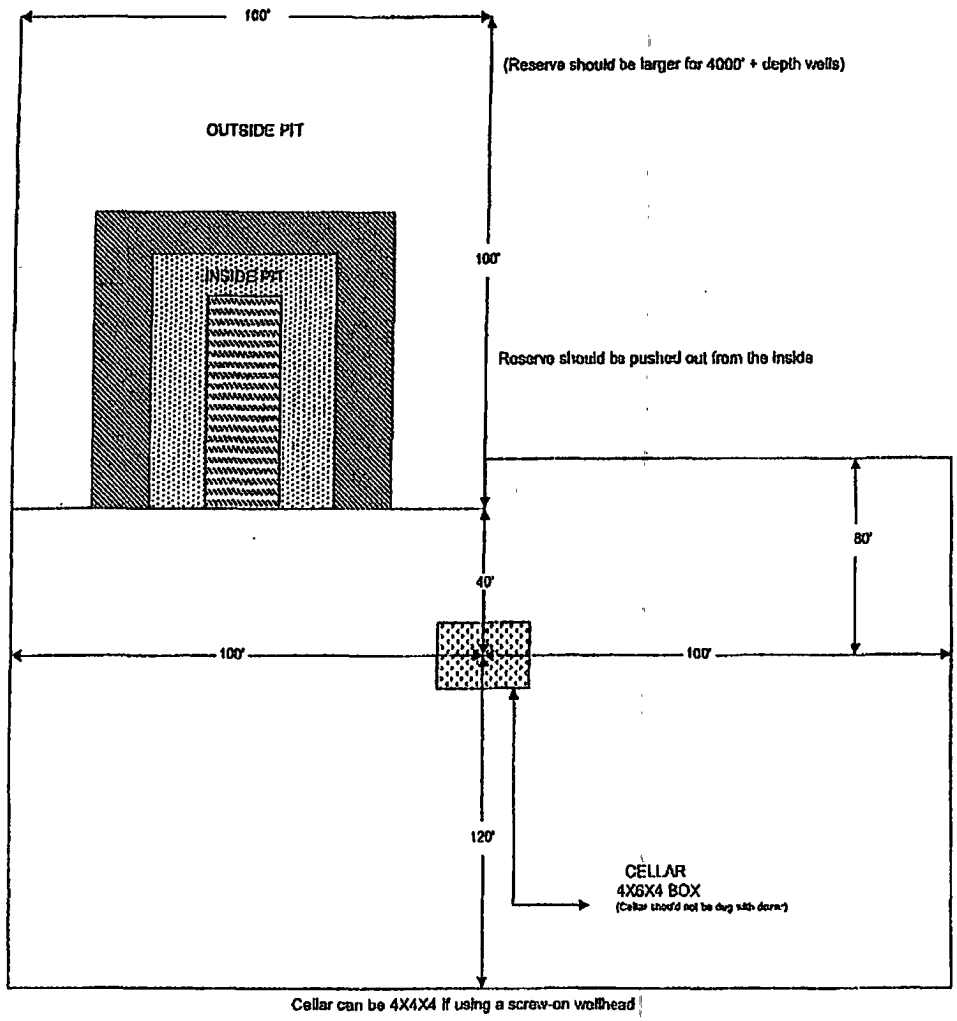
FEBRUARY 13, 2008
Date of Survey

Signature and Seal of Professional Surveyor: Terry J. Asel 2/22/08

Certificate Number 15079

WO# 071217WL-j (Rev C) (KA)

LOCATION SPECIFICATION FOR STEEL PITS
(PICTURE NOT TO SCALE)



Hydrogeological Data
(Based on Appropriate Requirements of 19.15.17.11 NMAC)

Well Name:
Libby Minerals LLC 1931 No. 8-1-K

Topography:
This location is within the Great Plains Physiographic Province, with flat to rolling prairie and scattered hills and bluffs. The land gradually rises westward, giving way to the frontal ranges of the Rocky Mountains. Elevation of the referenced well is approximately 4465 feet MSL. The location is in mid elevations, on a gentle northern slope of Black Hills, overlooking a tributary of Ute Creek to the north and west (see Siting Criteria Map II, attached).

Soils:
Soils within this region have been mapped by the Natural Resources Conservation Service. The following soil unit occurs within the proposed project area:

Berthoud loam, 1 to 5% slopes:
This soil type is generally found on plains at an elevation of 5000 to 7000 feet. It is made up of 90% Berthoud and similar soils. Berthoud soils, found on footslopes of alluvial fans, formed from calcareous alluvium derived from igneous and sedimentary rock. This soil type is well drained and has a high available water capacity. The capacity of the most limiting layer to transmit water is moderately high or high. There is no frequency of flooding or ponding. A typical profile for Berthoud soil would be loam at 0 to 12 inches, and clay loam at 12 to 60 inches.

Source: United States Department of Agriculture, Natural Resources Conservation Service. 2008. Soil Survey Geographic (SSURGO) Database for Harding County, New Mexico. Accessed February 2009.

Geology:
The geology of this region has been mapped by the United States Geological Survey. Geology of this area is mapped as Alluvium, upper and middle Quaternary.

Source: United States Geological Survey. Updated December 2007. Preliminary Integrated Geologic Map Databases for the United States: Central States: Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Iowa, Missouri, Arkansas, and Louisiana. http://tin.er.usgs.gov/geology/state/state.php?state=NM. Accessed February 2009.

Surface Hydrology:
Northeastern New Mexico is drained by the Arkansas River and its tributary, the Canadian River. The location would drain to the north-northeast into either Ute Creek, a tributary of the Canadian River (to the north) or a tributary associated with Ute Creek (to the west and north). Topographic maps indicate that the pit would be greater than 300 feet from any significant watercourse (see Siting Criteria Map II, attached).

Ground Water Hydrology:
This location is within central Harding County, New Mexico, within the Great Plains Physiographic Province. The High Plains aquifer extends westward into eastern Harding County, but in the proposed project region there is no principal aquifer. Aquifers do not exist here, yield too little water to wells to be significant, or yield sufficient water to supply local requirements but are not extensive enough to be classified as a major aquifer.

Depth to groundwater is unknown at this location. The nearest water well identified on iWaters, TU 1363, is approximately 2.7 miles north of the site. Depth to water at this well is 24 feet. The next nearest well, TU 503, is approximately 4.2 miles from the pit; no water depth data is available for that well (see Siting Criteria Map I and iWaters reports, attached).

Source: United States Geological Survey. 2001. Groundwater Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C; http://capp.water.usgs.gov.

New Mexico Office of the State Engineer. August 2008. iWaters database. http://iwaters.ose.state.nm.us:7001/iWATERS/. Internet accessed February 2009.

Siting Criteria Compliance Demonstrations
(Based on Appropriate Requirements of 19.15.17.10 NMAC)

Depth to groundwater (should not be less than 50 feet):
Depth to groundwater is unknown at this location. The nearest water well identified on iWaters, TU 1363, is approximately 2.7 miles north of the site. Depth to water at this well is 24 feet. The next nearest well, TU 503, is approximately 4.2 miles from the pit; no water depth data is available for that well (see Siting Criteria Map I and iWaters reports, attached).

Distance to watercourse (should not be within 300 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake):
Topographic maps indicate that the pit would be greater than 300 feet from any significant watercourse (see Siting Criteria Map II, attached).

Distance to buildings (should not be within 300 feet of a permanent residence, school, hospital, institution, or church):
The pit would not be within 300 feet of any of these locations (see Siting Criteria Map I).

Distance to springs or wells (should not be within 500 feet of a private, domestic fresh water well or spring used by less than five (5) households or within 1000 feet of any other fresh water well or spring):
The pit would not be within 500 feet of any well or spring (see Siting Criteria Map I).

Presence within incorporated area (should not be within incorporated municipal boundaries or within defined municipal fresh water well field covered under municipal ordinance):
The pit would not be within an incorporated area or municipal fresh water well field (see Siting Criteria Map I).

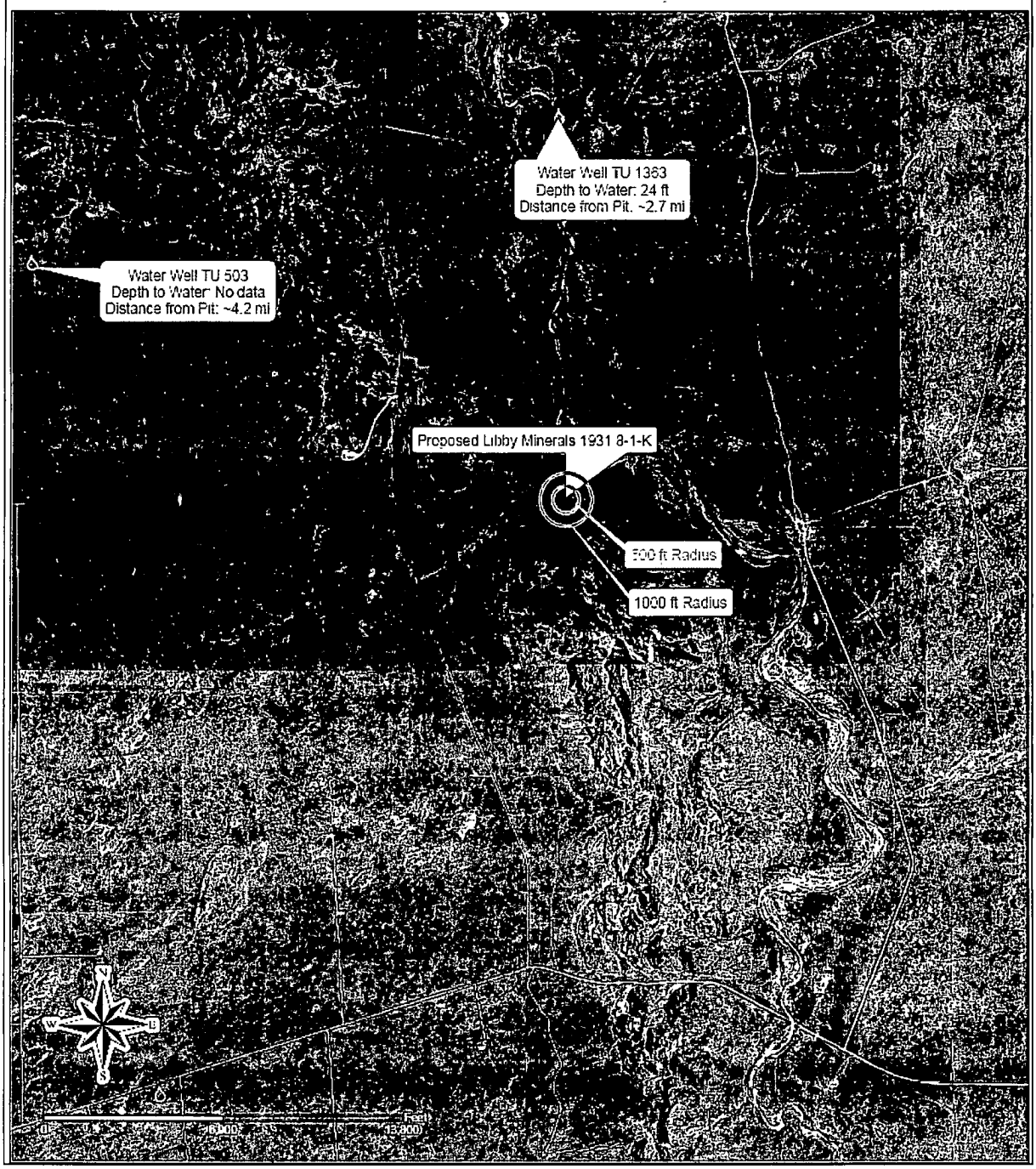
Distance to wetlands (should not be within 500 feet):
The USFWS has not mapped this location for wetlands (see Wetlands map, attached). However, topographic and ortho data indicate that the location is not near a wetland.

Location above subsurface mine (should not overlie a subsurface mine):
The pit would not overlie a mine (see Mines, Mills, and Quarries map, attached).

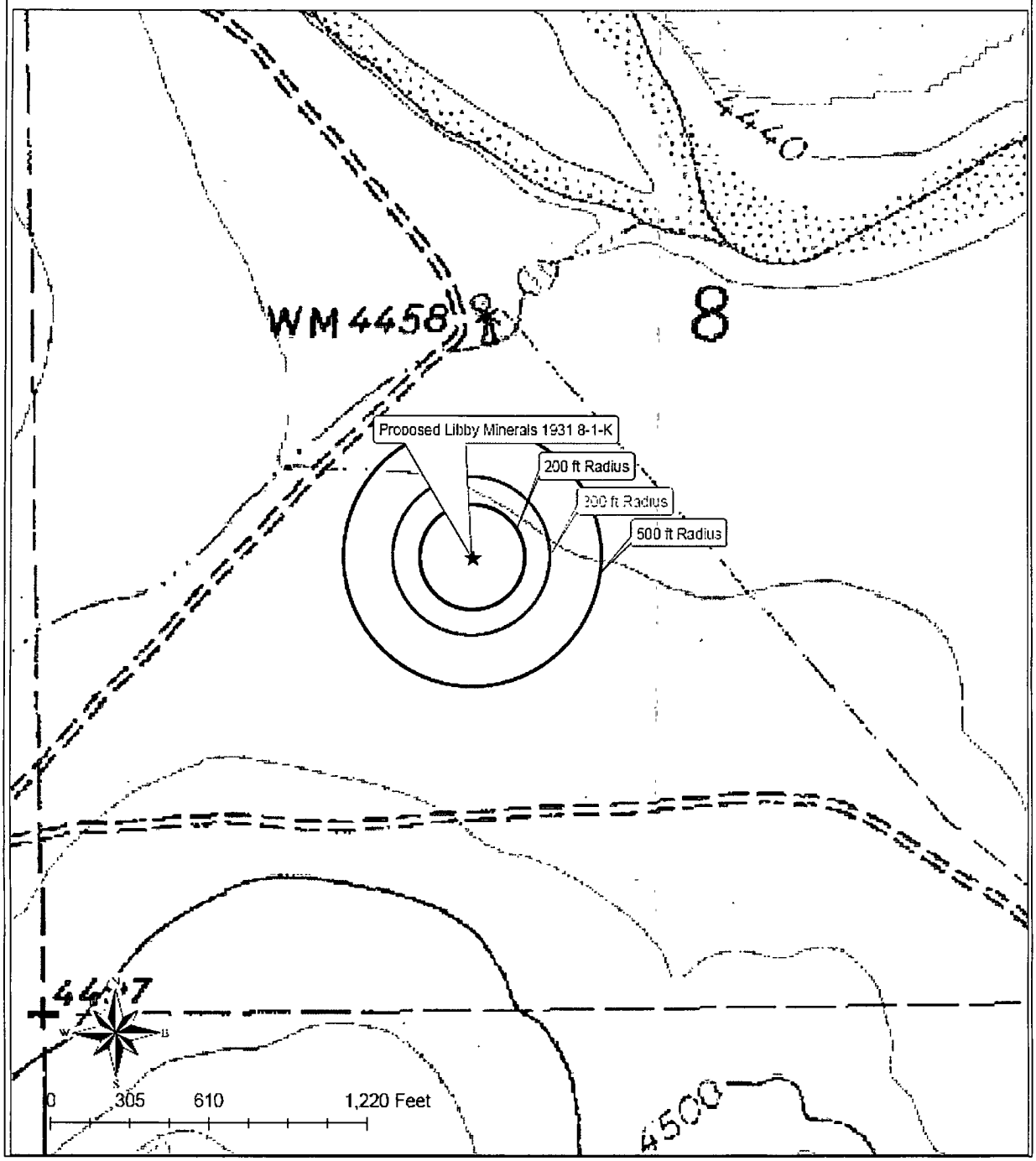
Presence within unstable area (should not be within an unstable area):
The location would not be within an unstable area (See Siting Criteria Map II).

Presence within floodplain (should not be within a 100-year floodplain):
The location has not been mapped by FEMA (see FEMA printout, attached). However, topographic and ortho data indicated that the location is not within a floodplain.

Siting Criteria Map I
Water Wells
Reliant Exploration & Production, LLC
Libby Minerals LLC 1931 No. 8-1-K
T19N, R31E, Section 08, NMPM
Harding County, New Mexico



Siting Criteria Map II
Topographic Features
Reliant Exploration & Production, LLC
Libby Minerals LLC 1931 No. 8-1-K
T19N, R31E, Section 08, NMPM
Harding County, New Mexico



DEPTH-TO-WATER DATA

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19N Range: 31E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

POD / SURFACE DATA REPORT 02/17/2009

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column (in feet)

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 20N Range: 31E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

WATER COLUMN REPORT 02/17/2009

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column (in feet)
TU 01363	20N	31E	29	3	4	3				160	24	136

Record Count: 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19N Range: 30E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

WATER COLUMN REPORT 02/17/2009

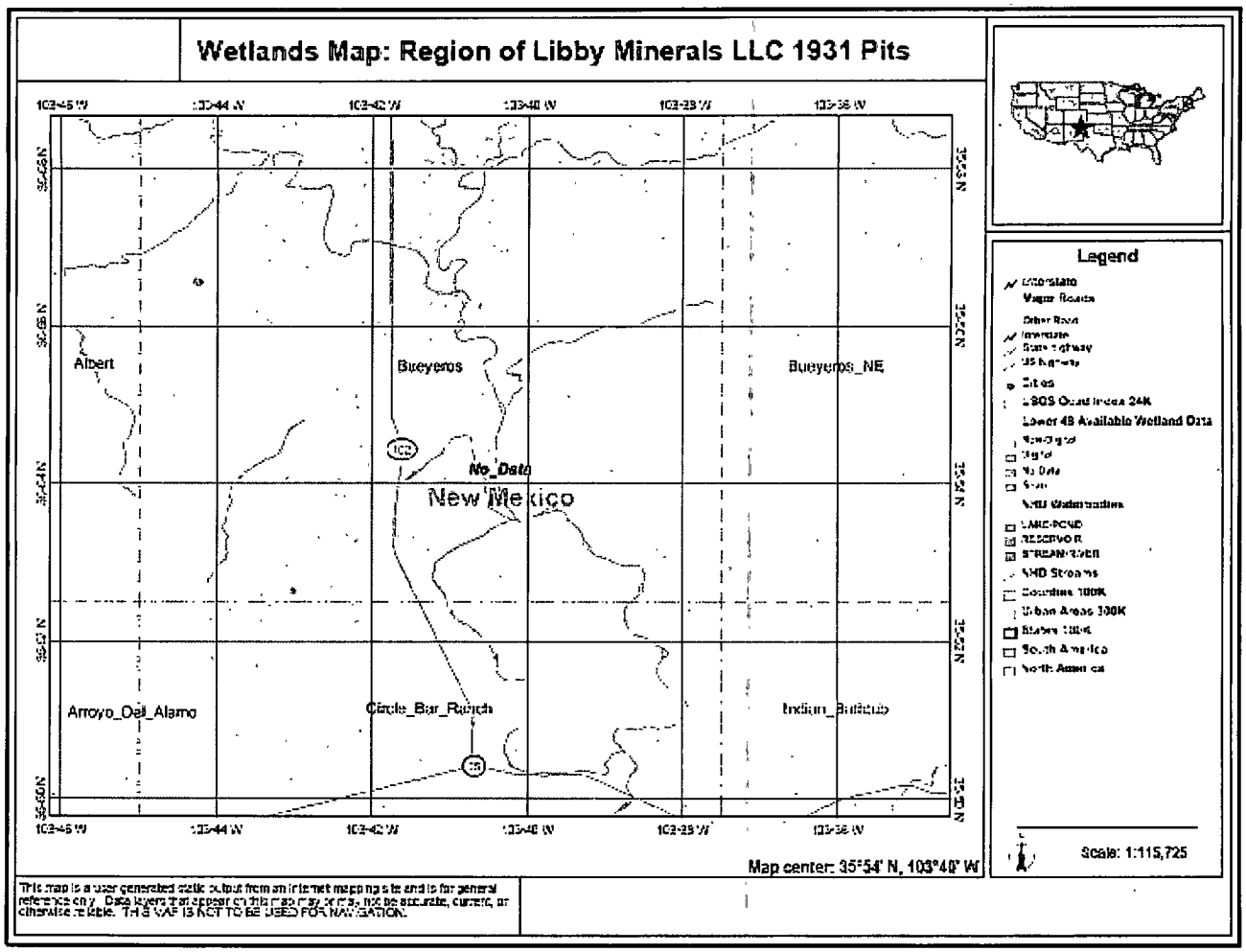
(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column (in feet)
TU 00513	19N	30E	04	2	3	1				60		
TU 01698 POD1	19N	30E	04	3	4	1				85	70	15

Record Count: 2

Source: New Mexico Office of the State Engineer. August 2008. iWaters database. http://iwaters.ose.state.nm.us:7001/iWATERS/. Internet accessed February 2009.

WETLAND DATA



Source: U.S. Fish and Wildlife Service National Wetlands Inventory. Updated March, 2009. http://www.fws.gov/wetlands/Data/mapper.html. Accessed March 2009.

100-Year Floodplain Data

FEMA Map Service Center

Product Catalog | Map Search | Quick Order | Digital Post Office | Help Log on

Home > Product Catalog > FEMA Issued Flood Maps

FEMA Issued Flood Maps

State : NEW MEXICO County : HARDING COUNTY Community : HARDING CO *

Sorry there are no items to display for this State, County and Community.

* designates unincorporated areas

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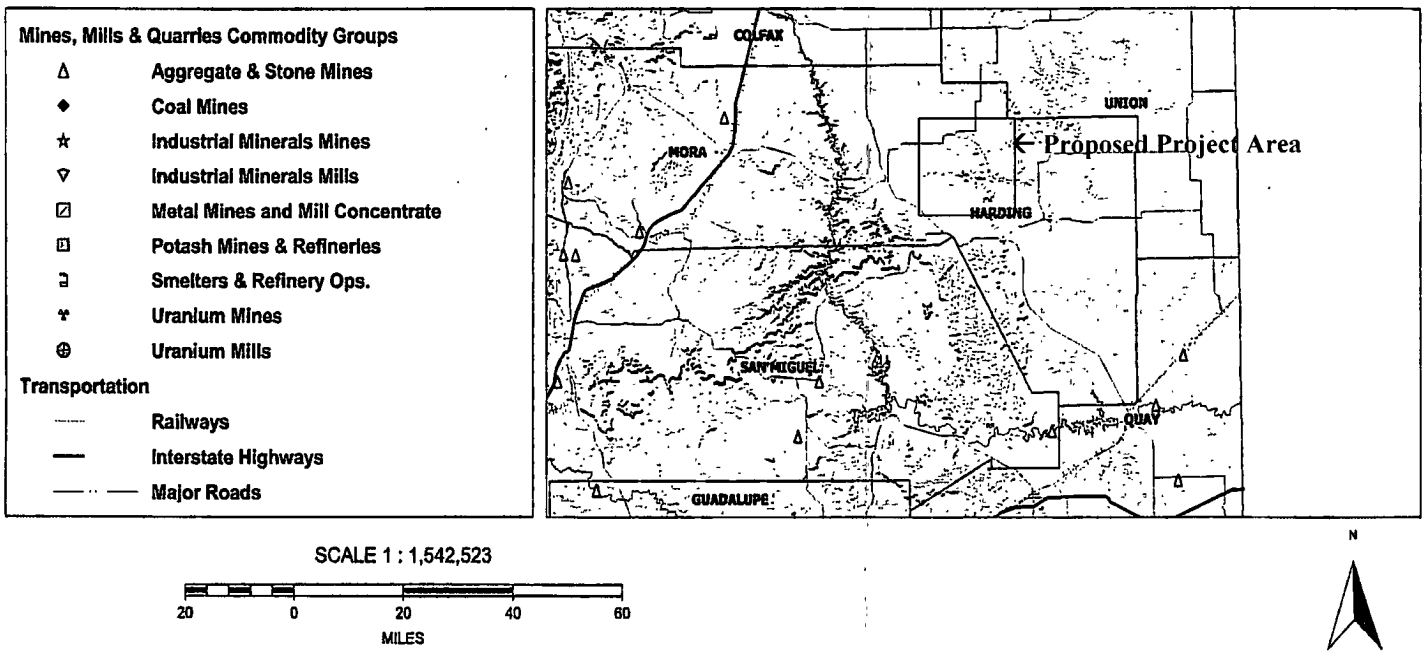
FEMA Map Service Center, P.O. Box 1038 Jessup, Maryland 20794-1038 Phone: (800) 358-9616
Adobe Acrobat Reader required to view certain documents. Click here to download.

Source: FEMA Map Service Center. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1. Accessed February 2009.

MMQonline Public Version



http://www.emnrd.state.nm.us/MMD/MMQonline/MMQonline-PUBLIC-PROD.mwf

Tuesday, March 31, 2009 11:13 AM

Source: New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2008. http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm. Internet accessed February 2009.

Design Plan
(Based on Appropriate Requirements of 19.15.17.11 NMAC)

Design and construction specifications for this temporary pit are as follows:

- Prior to constructing the pit, topsoil would be stripped and stockpiled for use as final cover or fill at the time of closure.
- An upright sign (at least 12" x 24" with lettering at least 2" in height) would be placed conspicuously on the fence surrounding the pit, unless the site has an existing well sign (complying with 19.15.3.103 NMAC). The sign would be posted in a manner and location such that the legend can be easily read, and would contain the following information: operator's name, legal location (quarter-quarter or unit letter, section, township, and range), and emergency telephone number(s).
- If an adequate surrounding perimeter fence does not already prevent unauthorized access to the well site or facility, the pit would be fenced or enclosed in a manner that prevents unauthorized access. The fence would be at least four (4) foot in height with at least four (4) strands of barbed wire evenly spaced between the top and bottom. Fences would be maintained in good repair. During drilling or workover operations, three (3) sides of the pit would be fenced; the side adjacent to the drilling or workover rig would remain open only during such operations.
- The pit would be designed and constructed to ensure the confinement of liquids.
- The pit would be constructed with a properly constructed foundation and interior slopes consisting of a firm, unyielding base. The pit would be smooth and free of rocks, debris, sharp edges, or irregularities to prevent the liner's rupture or tearing. Slopes would be no steeper than two (2) horizontal feet to one (1) vertical foot (2H:1V).
- The pit would have a geomembrane liner with 20-mil string-reinforced LLDPE or its equivalent (approved by the division district office). This liner would be composed of an impervious, synthetic material resistant to petroleum hydrocarbons, salts, and acidic and alkaline solutions. The liner would be resistant to ultraviolet light. The liner would comply with EPA SW-846 method 9090A.
- Qualified personnel would perform field seaming. Liner seams would be minimized, particularly in corners and irregularly shaped areas. Field liner seams would be welded. Factory-welded seams would be used where possible. Prior to field seaming, liners would be overlapped four (4) to six (6) inches and would be oriented parallel to the line of maximum slope (along, not across, the slope).
- Construction would avoid excessive stress-strain on the liner.
- Geotextile would be used under the liner where needed to reduce localized stress-strain or protuberances that may compromise the liner's integrity.
- The edges of all liners would be anchored in the bottom of a compacted, earth-filled trench that is at least 18" deep.
- The liner would be protected from any fluid force or mechanical damage at any point of discharge into or suction from the pit.
- A berm, ditch, proper sloping, or other diversion would be constructed around the pit to prevent run-on of surface water. During drilled operations, the edge of the pit adjacent to the drilling or workover rig may not have protection if the pit is being used to collect liquids escaping from the rig and run-on will not result in a breach of the pit.
- The volume of the pit would not exceed 10 acre-feet, including freeboard.

Operating & Maintenance Plan
(Based on Appropriate Requirements of 19.15.17.12 NMAC)

Operating and maintenance specifications for this temporary pit are as follows:

- The pit would be maintained to contain liquids and solids, prevent contamination of fresh water, and protect public health of the environment.
- All drilling fluids would be recycled, reused, reclaimed, or disposed of in a manner approved by division rules and that prevents contamination of fresh water and protects public health and the environment.
- Hazardous waste would not be discharged into or stored in the pit.
- If the pit liner's integrity is compromised or if penetration of the liner occurs above the liquid's surface, the appropriate division district office would be notified within 48 hours of the discovery, and the liner would be repaired or replaced.
- If the pit develops a leak or if any penetration of the liner occurs below the liquid's surface, all liquid above the damake or leak line would be removed within 48 hours, the appropriate division district office would be notified within 48 hours, and the liner would be repaired or replaced.
- The injection or withdrawal of liquids from the pit would be accomplished via a header, diverter, or other hardware that prevents damage to the liner by erosion, fluid jets, or impact from installation and removal of hoses or pipes.
- Pit operation would prevent the collection of surface water run-on.
- An oil-absorbent boom or other device would be installed and maintained onsite to contain and remove oil from the pit's surface.
- Only fluids used or generated during drilling or workover processes would be discharged into the pit. The pit would remain free of miscellaneous solid waste or debris. A tank made of steel or other division district office-approved material would be used to contain hydrocarbon-based drilling fluids. Immediately after cessation of a drilling or workover operation, any visibly or measurable layer of oil would be removed from the surface of the pit.
- At least two (2) feet of freeboard would be maintained.
- The pit would be inspected at least once daily while the drilling or workover rig is onsite. Thereafter, the pit would be inspected weekly as long as liquids remain within it. An inspection log would be maintained and made available to the division district office upon request. A copy of the log would be filed with the division district office at the time of pit closure.
- All free liquids would be removed from the pit within 30 days from release of the drilling or workover rig. On form C-105 or C-103, the date of the drilling or workover rig's release would be noted. If necessary, an extension of up to three (3) months may be requested from the division district office; this extension may or may not be granted.
- Any liquids used for cavitation would be removed from the pit within 48 hours after completing cavitation. If it is not feasible to access the location within 48 hours, this would be demonstrated to the district office's satisfaction and additional time would be requested.

Closure Plan
(Based on Appropriate Requirements of Subsection C, 19.15.17.9 NMAC & 19.15.17.13 NMAC)

Closure specifications for this temporary pit are as follows:

- The pit would be closed within six (6) months from the date that the drilling or workover rig is released. If necessary, the division district office may grant an extension not to exceed three (3) months.

- All liquids from the pit would be removed prior to closure. Liquids would be disposed of at the Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003), unless they are recycled, reused, or reclaimed in a division district office-approved manner.

- All contents, including synthetic pit liners, would be excavated from the pit and transported to Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003).

- The soils beneath the pit would be tested to determine whether a release occurred. A five-point composite sample would be collected. In addition, grab samples would be gathered from any area that is wet, discolored, or showing evidence of a release. The samples would be sent to an approved laboratory and analyzed for benzene, total BTEX, TPH, the GRO and DRO combined fraction, and chlorides. The following should not be exceeded:

    - Benzene (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 0.2 mg/kg
    - BTEX (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 50 mg/kg
    - TPH (as determined by EPA SW-846 method 418.a or other division-approved EPA method): 2500 mg/kg
    - GRO and DRO combined fraction (as determined by EPA SW-846 method 8015M): 500 mg/kg
    - Chlorides (ads determined by EPA method 300.1): 500 mg/kg or background concentration, whichever is greater

  The division would be notified of the results on form C-141, at which point the division may require additional delineation.

- If it is determined that a release has occurred, Reliant would comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

- If it is determined that a release has not occurred, or that any release doesn't exceed the above-specified concentrations, the pit excavation would be backfilled with compacted, non-waste-containing, earthen material. A division-prescribed soil cover would be constructed and the site would be recontoured and revegetated, per Subsections G, H, and I of 19.15.17.13 NMAC:

    - All areas associated with the pit that are no longer being used would be substantially restored to the condition that existed prior to oil and gas operations by placement of the soil cover (detailed below), recontouring to match original contours and surrounding topography, and revegetating (detailed below).

    - If an alternative to the revegetation requirements is required to prevent erosion, protect fresh water, or protect human health and the environment, this alternative would be proposed to the surface owner. The proposed alternative, with written documentation demonstrating that the surface owner approves the alternative, would be submitted to the division for approval.

- Soil cover would consist of the background thickness of topsoil or one (1) foot of material suitable for establishing vegetation at the site, whichever is greater.

- Soil cover would be constructed to the site's existing grade and would prevent ponding of water and erosion of the cover material.

- The first growing season following pit closure, all disturbed areas associated with the pit and no longer being used would be seeded or planted.

- Seeding would be accomplished by drilling on the contour whenever practical, or by other division-approved methods. Vegetative cover equaling 70% of the native perennial vegetative cover (unimpacted by overgrazing, fire, or other damaging intrusion) would be obtained. This cover would consist of at least three (3) native plant species, including one (1) grass species but not including noxious weeds. That cover would be maintained through two (2) successive growing seasons, during which time no artificial irrigation would occur.

- Seeding or planting would be repeated until the required vegetative cover is successfully achieved.

- When conditions aren't favorable for the establishment of vegetation (such as during periods of drought), the division would be contacted for approval to delay seeding or planting, or for approval to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing, etc.

- The division would be notified when seeding or planting is completed, and when successful revegetation has been achieved.

- Within 60 days of closure, completion, a closure report would be submitted on form C-144, with necessary attachments, to document closure activities, including sampling results, a plot plan, and backfilling details. In this closure report, Reliant would certify that all information in the report and attachments is correct and that Reliant has complied with all applicable closure requirements and conditions specified in the approved Closure Plan. A plat of the temporary pit location would be provided on form C-105.