N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue

Form 3160-3 (April 2004) Artosia, NM 88210

FORM APPROVED

OMB No. 1004-0137 Expires March 31, 2007 UNITED STATES Lease Serial No. DEPARTMENT OF THE INTERIOR NM 32308 **BUREAU OF LAND MANAGEMENT** 6. If Indian. Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7 If Unit or CA Agreement, Name and No. **✓** DRILL REENTER la. Type of work: 8. Lease Name and Well No. Oil Well Gas Well ✓ Single Zone Multiple Zone lb. Type of Well: LL & E B Federal #1 9. API Well No. Name of Operator **McKay Oil Corporation**)0 -005 -3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 3a. Address PO Box 2014 Roswell, NM 88202-2014 505-623-4735 W. Pecos ABO Slope RECEIVE 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area 1500' FSL & 1500' FEL At surface NOV 2 1 2005 Unit J, Sec. 12, T6S, R22E At proposed prod. zone CUU-ANTES 2. County or Parish 13. State 14. Distance in miles and direction from nearest town or post office* **Approximately 25 miles** Chaves NM 15. Distance from proposed 17. Spacing Unit dedicated to this well 16. No. of acres in lease 1650 location to nearest property or lease line, ft. 741.20 (Also to nearest drig. unit line, if any) 20. BLM/BIA Bond No. on file 19. Proposed Depth 18. Distance from proposed location* to nearest well, drilling, completed, 4300' 840 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22 Approximate date work will start* 23 Estimated duration 4189 7-10 days 09/01/2005 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form: 1. Well plat certified by a registered surveyor. Bond to cover the operations unless covered by an existing bond on file (see

- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature		Name (Printed/Typed) James L. Schultz	Date 08/24/2005		
Title Agent					
Approved by (Signature)	/S/LARRY D. BRAY	Name (Printed/Typed) /S/LARRY D. BRAY	NOV 18	<u> </u>	

Title Office Assilitant Field Manager. ROSWELL FIELD OFFICE APPROVED FOR 1 YEAR Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to

conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES 1. e. Glorieta

^{*(}Instructions on page 2)

State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210

UL or lot No.

Dedicated Acres

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised JUNE 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

East/West line

County

DISTRICT III

Section

Township

Joint or Infill

Range

Consolidation Code

Lot Idn

Santa Fe, New Mexico 87505

1000 Rio Brazos I	Rd., Aztec, N	M 87410			•				
DISTRICT IV	DR., SANTA PE,	NM 87505	WELL LO	CATION	AND ACREA	GE DEDICATI	ON PLAT	□ AMENI	ED REPORT
API Number				82740 Peccs Slape: Aba			West		
Property Code			Property Name				Well Number		
			LL & E FEDERAL B				1		
OGRID No.			Operator Name McKAY OIL CORPORATION				Elevation 4176'		
Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	12	6-S	22-E		1500	SOUTH	1500	EAST	CHAVES
			Bottom	Hole Loc	cation If Diffe	erent From Sur	face		

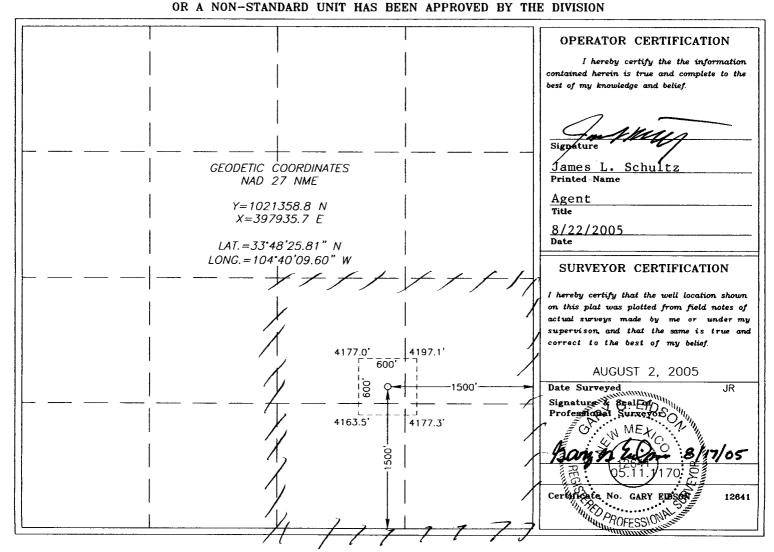
160 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

Feet from the

Order No.

North/South line

Feet from the



1625 N. French Dr., Hobbs, NM 88240

PAGE 17/50

Form C-144

June 1, 2004

State of New Mexico **Energy Minerals and Natural Resources**

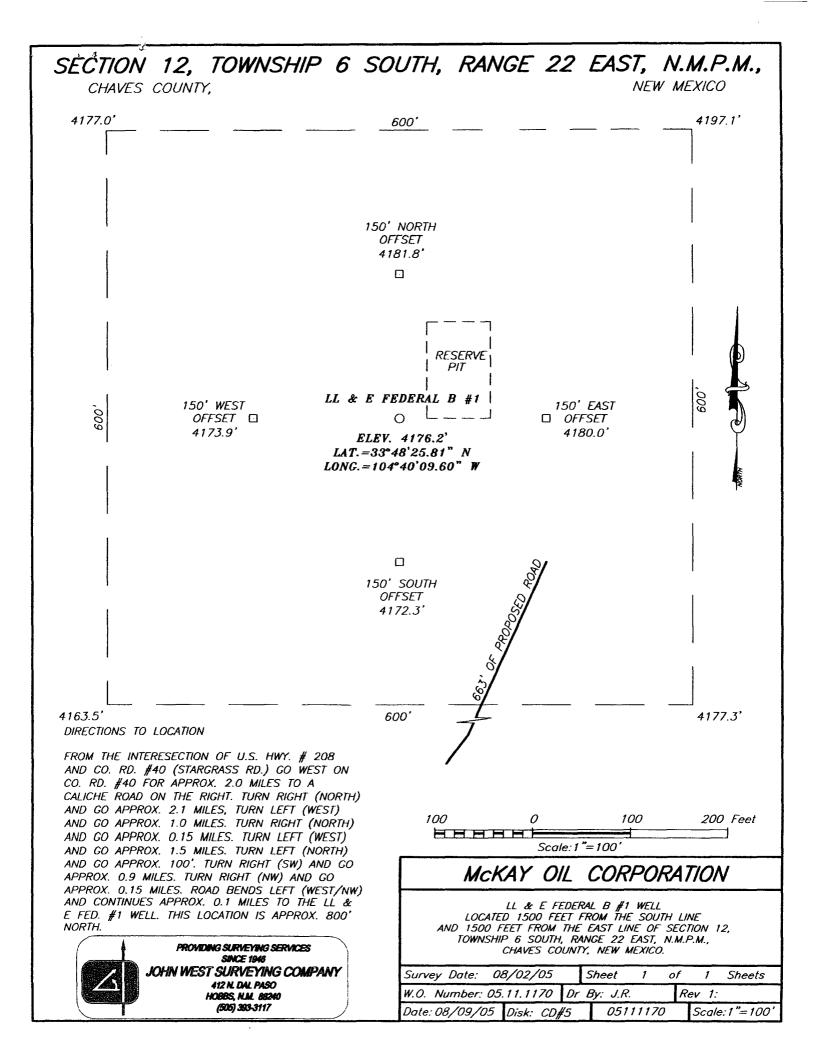
MCKAY DIL

Oil Conservation Division

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe

District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fc, NM 87505 1220 South St. Francis Dr. office Santa Fe, NM 87505 Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes No Submitted 4/16/04 Type of action; Registration of a pit or below-grade tank Closure of a pit or below-grade tank Closure of a pit or below-grade tank					
Operator: MCKAY OIL CORPORATION Telephon Address: PO Box 2014 Reswell, NM \$5202-2014					
Pacility or well name: LL&E B Federal #1 API #:	IVI as Obsider 1 Sec 12 T 68	R 22E			
Pacify or well marke: LLEES FEODTALE! AFT #: County: CHAVES Latitude Longitude	27 ATS 1027 17 1893 17 Saniform On	uner Redect State Private Indian			
County: CHAVES Latitude Longitude					
PA	Below-grade tank				
Type: Drilling Production Disposal	Volume:bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes D If not, explain why not. RECEIVED				
Workover Remergency					
Lined 🖾 Unlined 🖂					
Uner type: Synthetic A Thickness 12 mil Clay		NOV 2 1 2005			
Ph Volumebbl		•			
	Less than 50 feet	(20 points)			
Depth to ground water (vertical distance from bottom of pit to seasonal	50 feet or more, but less than 100 feet	(10 points)			
high water elevation of ground water.)	100 Seet or more	(0 points)			
		(20 points)			
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	1			
water source, or less than 1000 feet from all other water sources.)	<u>No</u>	(0 noints)			
	Loss than 200 foot	(20 points)			
Distance to surface water: (horizontal distance to all wetlands, playes,	200 feet or more, but less than 1000 feet	(10 points)			
irrigation canals, ditches, and percential and ephemeral watercourses.)		(0 points)			
	1000 feet or more	C d bountal			
	Ranking Score (Total Points)	0			
If this is a pit closure: (1) attach a diagram of the facility showing the pit's re	elationship to other equipment and tanks. (2) Indicate di	isposal location: (check the onsite box if			
your are burying in place) ensite 🔯 office 📋 If offsite, usons of facility	(3) Attach a general desc	cription of remedial action taken including			
remediation start date and end date. (4) Groundwater encountered: No 🗵 Ye	If yes show death below ground surface	ft. and attach cample results. (5)			
remodiation start date and end date. (4) Groundwide described to 100 kg. 1.4 Attach poil sample results and a diagram of sample locations and excavations.					
Additional Comments:					
	_				
I hereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines 20 Date: 08/23/05	f my knowledge and belief. I further certify that the a , a general permit \square , or an (attached) alternative	above-described pit or below-grade tank has OCD-approved plan [].			
Printed Name/Title James L. Schultz, Agent	Signature Jack William				
Vancante and NR (COT) and and interesting all and interesting	of selices the country of liability should the contests of	the pit or tank contaminate ground water or			
otherwise endanger public health or the environment. Nor does it relieve the regulations.	e operator of its responsibility for compilance with any o	ther federal, state, or local laws and/or			
Approval: Printed Name/Title Mike Stateber AIST THE	Signature Milde Annocures	Date: 11/33/6;-			
Printed Name Title ////// Fratcher HIST CHE	Signature /// CAY TYUNGHASC	Date: ///+3/0)			



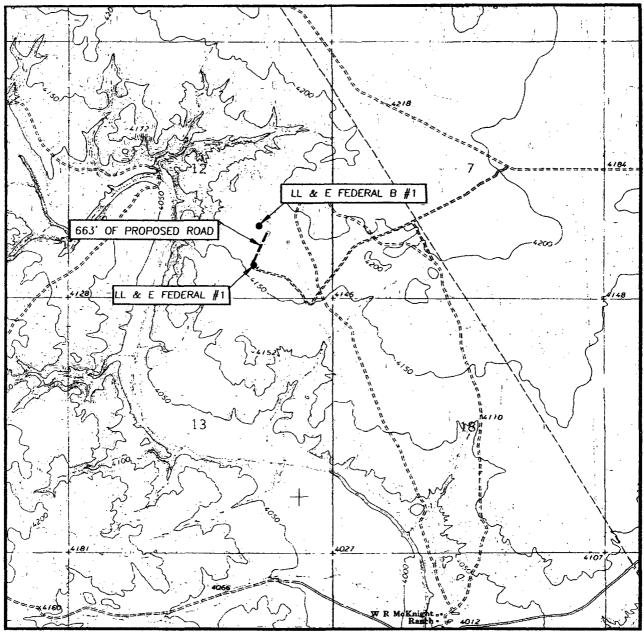
PERTINENT INFORMATION

FOR MCKAY OIL CORPORATION LL&E B Federal #1 1500' FSL & 1500' FEL Sec. 12, T6S, R22E

Chaves County, New Mexico

LOCATED:	25 air miles Northwest of Roswell, NM.
LEASE NUMBER:	NM 32308
LEASE ISSUED:	8/8/1978
RECORD LESSEE:	McKay Petroleum Corporation
BOND COVERAGE:	Operator's \$25,000 Statewide
AUTHORITY TO OPERATE:	Assignment of Operating Rights
ACRES IN LEASE:	741.20
SURFACE OWNERSHIP:	Federal
OWNER:	USA-BLM
POOL RULES:	General Statewide Rules
EXHIBITS:	 A. Road and Well Map B. Contour Map C. Rig Layout D. BOP Diagram E. Lease Map

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: MESA SW, N.M. - 10'

SEC. 12 TWP. 6-S RGE. 22-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 1500' FSL & 1500' FEL

ELEVATION 4176'

MCKAY

OPERATOR OIL CORPORATION

LEASE LL & E FEDERAL B

U.S.G.S. TOPOGRAPHIC MAP

MESA SW, N.M.



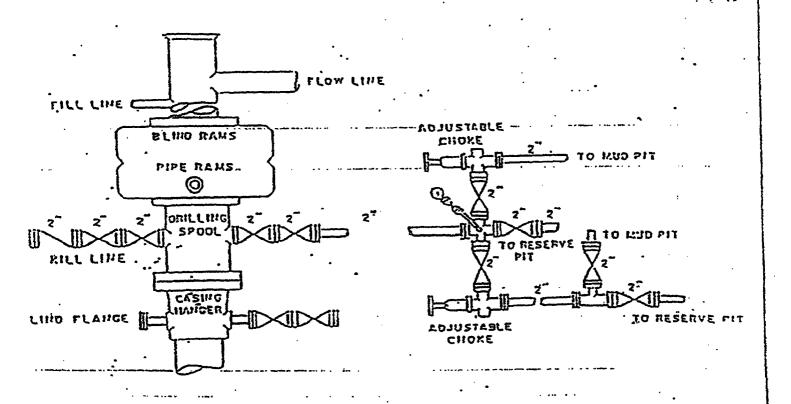
PROVIDING SURVEYING SERVICES
SINCE 1948
JOHN WEST SURVEYING COMPANY
412 IL DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

MCKAY OIL COPRORATION

LL&E B Federal #1

NW4SE4 of Section 12, T6S, R22E Chaves County, New Mexico

EXHIBIT "D"



SUPPLEMENTAL DRILLING DATA

MCKAY OIL CORPORATION LL&E B Federal #1 1500' FSL & 1500' FEL Sec. 12, T6S, R22E

Chaves County, New Mexico

The following items supplement Form 3160-3 in accordance with instruction contained in Onshore Oil and Gas Order No. 1:

1. SURFACE FORMATION: San Andres

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Yeso - 912' Tubb - 2408' Abo - 2621'

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATIONS:

Fresh Water - In surface formation above 600'
Gas - In Abo Formation below 2621'

4. PROPOSED CASING PROGRAM:

12-1/4" hole 8-5/8" 24# 950' + 7-7/8" hole 5-1/2" J-55 15.5# TD

5. PROPOSED CEMENTING PROGRAM:

Surface to 950' class C - 350 sxs cemented and circulated

to surface.

Production Casing class C - 300 sxs cemented with adequate

cover.

6. PROPOSED DRILLING PROGRAM:

McKay Oil Corporation proposes to drill and test the ABO formation. Approximately 950' of surface casing will be set and cemented to surface. 5-1/2" production casing will be set and cemented with adequate cover, perforated and stimulated as needed for production.

- 7. <u>PRESSURE CONTROL EQUIPMENT</u>: Blowout preventer will consist of 2 ram, 2M system. A sketch of the BOP is attached.
- 8. CIRCULATION MEDIUM: Water Drilling
- 9. <u>AUXILIARY EQUIPMENT</u>: Full-opening drill string safety valve fit for the drill string in use, will be kept on the rig floor at all times.
- 10. TESTING, LOGGING AND CORING PROGRAM:

Samples: Catch samples from surface to TD.

DST's: None.

Logging: GR-CNL, Dual Lateral MSFL from

surface to TD.

Coring: None.

11. <u>ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE</u>: None anticipated.

12. <u>ANTICIPATED STARTING DATE</u>: As soon as possible. Drilling should be completed within 10 days. Completion operations (perforations and stimulation) will follow drilling operations.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MCKAY OIL CORPORATION LL&E B Federal #1 1500' FSL & 1500' FEL Sec. 12, T6S. R22E

Chaves County, New Mexico

NM 32308

This plan is submitted with the application for permit to drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

, 1

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well is staked. The well is approximately 21 miles north of Roswell, NM.
- B. <u>Directions</u>: From the intersection of US Highway #208 and County Road #40 (Stargras Road) go west on the County Road #40 for approximately 2.0 miles to a caliche Road on the right. Turn right (North) and go approximately 2.1 miles, turn left (West) and go approximately 1.0 miles turn right (North) and go approximately 0.15 miles. Turn left (West) and go approximately 1.5 miles. Turn left (North) and go approximately 100'. Turn right (Southwest) and go approximately 0.9 miles. Turn right (Northwest) and go approximately 0.15 miles. Road bends left (West/northwest) and continues approximately 0.1 miles to the LL & E Federal #1 Well. This location is approximately 800' North.

2. PLANNED ACCESS ROAD:

- A. Length and Width: 1/4 mile long and 20' wide.
- B. Surface Materials: Sand, gravel and caliche where needed.
- C. Turnouts: None
- D. Maximum Grade: No more than 3%.
- E. Drain Design: Road will have drainage ditches on both sides and a crowned

top, with culverts and/or low water crossings as necessary.

F. Culverts: None.

, T

- G. Cuts and Fill: None.
- H. Gates, Cattle guards: None needed. Already in place.
- I. Top Soil: Very little.

3. LOCATION OF EXISTING WELLS:

A. A map indicating the location of adjacent wells is attached.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A: <u>See Exhibit "A"</u> for location of existing lease wells. If the well is commercial, production facilities and tank battery will be constructed.
- B. <u>Cuts and Fills</u>: Less than 15' of cut and fill will be required for the pad size of 300' x 250'. (See Exhibit "D")
- C. <u>Top Soil</u>: Any topsoil, which can sustain plant vegetation, will be bladed and piled for future rehabilitation.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. Water will be purchased from a commercial source and trucked to the location over existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Closest Pit to the location.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during test will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage, and junk will be placed in portable receptacles and hauled from the location upon completion of drilling and completion operations.
- F. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

, 1

A. None necessary.

9. WELL SITE LAYOUT:

- A. Exhibit "C" indicates the relation location and dimensions of the well pad, mud pits, reserve pit and major rig equipment.
- B. The location slopes very slightly to the east and southeast.
- C. The reserve pit will be lined with plastic to prevent loss of water.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing conditions as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the well is non-productive or abandoned, the disturbed area will be rehabilitated using the preserved soil mentioned in 2.I. and 4.C.

11. OTHER INFORMATION:

- A. <u>Topography</u>: The topography is a gradual slope to the south in the vicinity of the access road and south-southwest in the vicinity of the drill pad. Regional slope is south-southwest toward the Arroyo del Macho.
- B. Soil: Sandy loam with limestone outcropping.
- C. <u>Flora and Fauna</u>: The flora consists of typical desert vegetation, such as yucca, cactus and various grasses. Fauna consists of desert wildlife such as coyotes, rodents,

snakes, dear and antelope.

- D. Ponds and Streams: Arroyo del Macho south-southwest of the proposed location.
- E. <u>Residences and other Structures</u>: The David Corn ranch house (old W.R. McKnight Ranch) is approximately 2 mile to the south-southwest.
- F. <u>Archaeological</u>, <u>Historical and Other Cultural Sites</u>: An Archaeologist from Bent, NM will be contracted to check and approve this site and access road.
 - G. Land Use: Grazing.
 - H. Surface Ownership: USA-BLM.

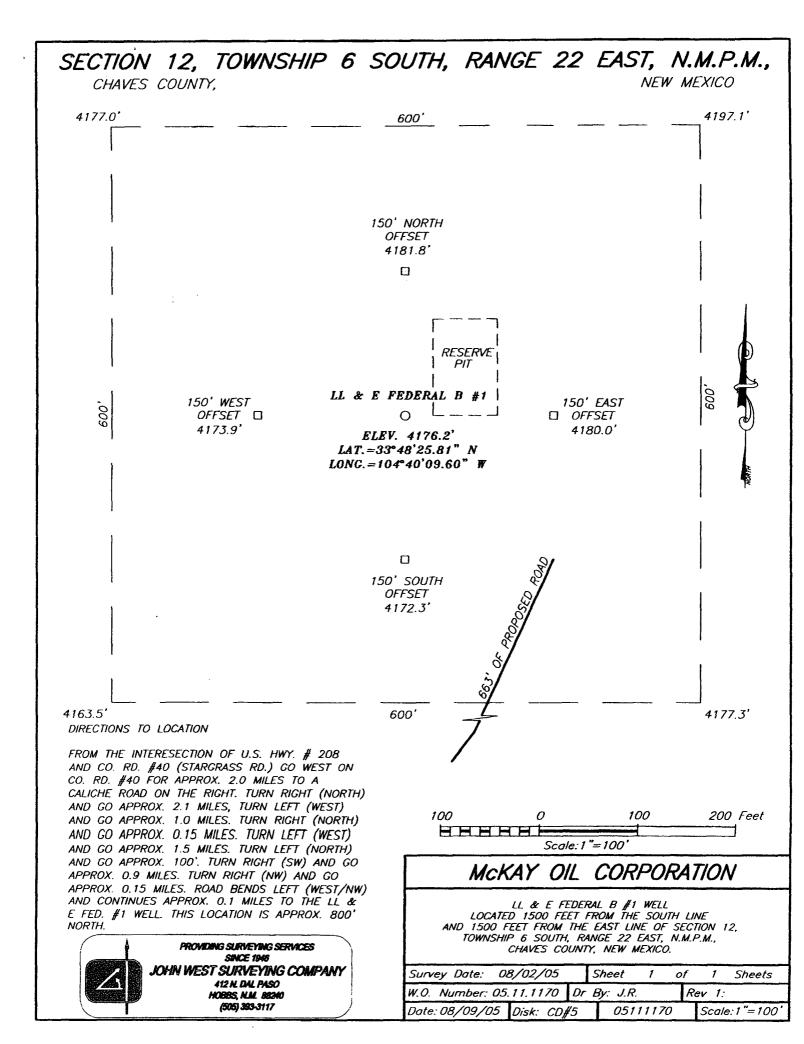
12. OPERATOR'S REPRESENTATIVE:

Humberto Perez Roswell, New Mexico (505) 623-4735 (O) (505) 626-8580 (C)

SIGNATURE & JY-05

13. **CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exists; that he statements made in this plan are, to the best of my knowledge true and correct; that the work associated with the operations proposed herein will be performed by MCKAY OIL CORPORATION and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to provisions of 18 USC 1001 for the filing of a false statement.



Southwest Petroleum Land Services, LLC

100 N. Pennsylvania Roswell, NM 88203 (505) 622-6713 (505) 622-9282 fax

August 23, 2005

Oil Conservation Division Bryan Arrant 1301 W. Grand Avenue Artesia, NM

Re: H2S Contingency Plan-LL&E B Federal #1

Bryan,

Please see attached Contingency Plan-H2S for the LL&E B Federal #1 located in Sec 12, T6S, R22E 1500' FSL & 1500' FEL in Chaves County. Should you need any further information, please contact me at 505-626-6879.

Sincerely,

Jim Schultz Agent for McKay Oil Corporation

MCKAY OIL CORPORATION PO BOX 2014 ROSWELL, NM 88202-2014 505-623-4735

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN FOR THE LL&E B FEDERAL #1 LOCATED IN SEC 12, T6S, R22E IN CHAVES COUNTY, NEW MEXICO

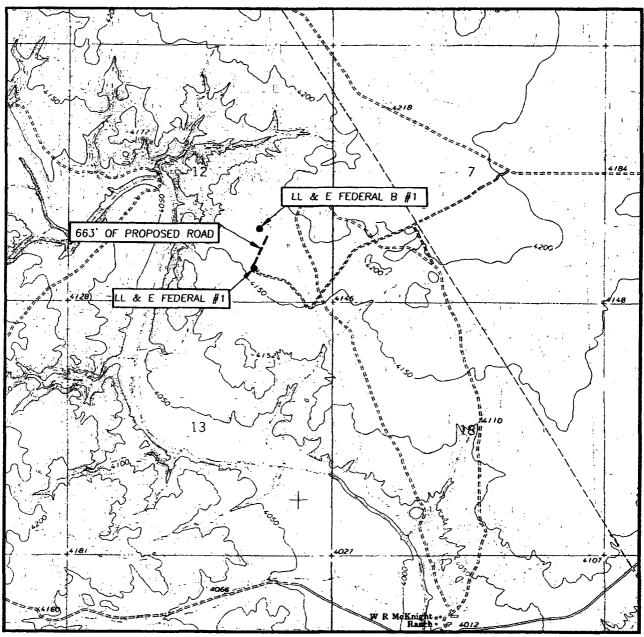
NO HYDROGEN SULFIDE OR OTHER HAZARDOUS GASES OR FLUIDS HAVE BEEN ENCOUNTERED, REPORTED OR KNOWN TO EXIST AT THIS DEPTH IN THIS AREA.

LL&E B FEDERAL #1

This is an open drilling Site. H2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H2S, including warning signs, wind indicators and H2S monitor. Pumpers carry (MICROPACKS) H2S pocket testers at all times. Pulling units have an H2S indicator that puts off light and alarm on any indication of H2S being present.

MAPS - SEE ATTACHED

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: MESA SW, N.M. - 10'

SEC. 12 IWP. 0-5 RGE. 22-E
SURVEYN.M.P.M.
COUNTY CHAVES
DESCRIPTION 1500' FSL & 1500' FEL
ELEVATION 4176'
McKAY OPERATOR OIL CORPORATION
LEASE LL & E FEDERAL B
U.S.G.S. TOPOGRAPHIC MAP MESA SW, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

EMERGENCY PROCEDURES

In the case of a release of gas containing H2S, the first responder must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder must evacuate any public spaces encompassed by the 100 ppm ROE. First responder must take care not to injure themselves during this operation. Company and or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H2S measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H2S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries occur during the response.

IGNITION OF GAS SOURCE

Should control of the well be considered lost and ignition considered, take care to protect against exposure of sulfur Dioxide (SO2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

CHARACTERISTICS OF H2S & SO2

COMMON NAME	CHEMICAL FORMULA	SPECIFIC GRAVITY	THRESHOLD LIMIT	HAZARDOUS LIMIT	LETHAL CONCENTRATION
HYDROGEN SULFIDE	H2S	1.189 AIR=1	10 PPM4	100 PPM/HR	600 PPM
SULFUR DIOXIDE	SO2	2.21 AIR=1	2 PPM	N/A	1000 PPM

CONTACTING AUTHORITIES

McKay Oil Corporation personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. be prepared with all information available. The following call list of essential and potential responders must be in coordination with the State of New Mexico's Hazardous Materials Emergency Response Plan (HMER).

MCKAY OIL CORPORATION CALL LIST

CHAVES COUNTY (505)	OFFICE	CELL PHONE	HOME PHONE
HUMBERTO PEREZ	625-1154	626-8580	627-1985
JIM ROBINSON	625-1154	626-8579	624-1093
APRIL MCKAY	623-4735	626-8575	625-2848

CHAVES COUNTY (505)

ROSWELL

STATE POLICE 622-7200

CITY POLICE 911 or 624-6770

SHERIFF'S OFFICE 624-6500

AMBULANCE 911

FIRE DEPARTMENT 624-6800

LEPC (Local Emergency Planning Committee) Teresa Barncastle 624-6770

ext 129

NMOCD 748-1283

ENMMC (Hospital) 622-8170

EXHIBIT A

OPERATORS NAME: McKay Oil Corporation LEASE NO.: NM-32308

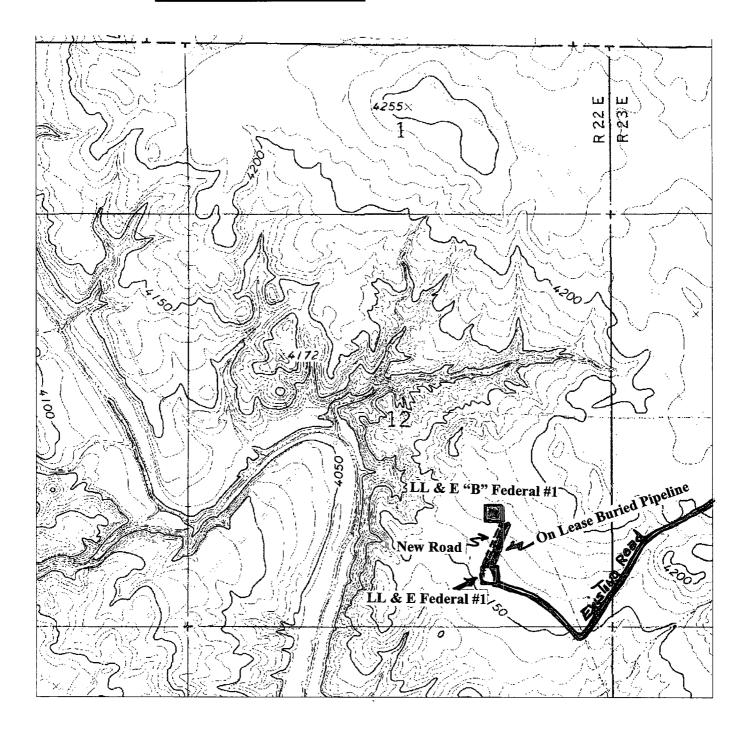
WELL NAME & NO: LL & E "B" Federal #1

ON-LEASE BURIED PIPELINE: Tie-In Point NE1/4SW1/4SE1/4

QUARTER/QUARTER & FOOTAGE: NW'4SE'4 - 1500' FSL & 1500' FEL

LOCATION: Section 12, T. 6 S., R. 22 E., NMPM

COUNTY: Chaves County, New Mexico





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

EXHIBIT B

WELL DRILLING REQUIREMENTS

1 of 5 pages

OPERATORS NAME: McKay Oil Corporation LEASE NO.: NM-32308

WELL NAME & NO: LL & E "B" Federal #1

QUARTER/QUARTER & FOOTAGE: NW'4SE'4 - 1500' FSL & 1500' FEL

LOCATION: Section 12, T. 6 S., R. 22 E., NMPM

COUNTY: Chaves County, New Mexico

I. GENERAL PROVISIONS:

A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).

B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who approves the Well Drilling Requirements.

II. WELL PAD CONSTRUCTION REQUIREMENTS:

A. The BLM shall administer compliance and monitor construction of the access road and well pad. Notify <u>Richard G. Hill</u> at least <u>3</u> working days (72 Hours) prior to commencing construction of the access road and/or well pad. Roswell Field Office number (505) 627-0247.

- B. Prior to commencing construction of the access road, well pad, or other associated developments, the holder shall provide the dirt contractor with a copy of the approved APD signature page, a copy of the location map (EXHIBIT A), a copy of pages 1 & 2 from the Well Drilling Requirements (EXHIBIT B), and a copy of the Permanent Resource Road Requirements (EXHIBIT D).
- C. The holder shall stockpile the topsoil from the surface of the well pad. The topsoil on the <u>LL & E "B"</u> <u>Federal #1</u> well pad is approximate <u>6</u> inches in depth. Approximately <u>800</u> cubic yards of topsoil shall be stockpiled on the <u>Northwest</u> corner of the well pad, opposite the reserve pit.

D. Reserve Pit Requirements:

- 1. The reserve pit shall be constructed 100' X 50' on the **East** side of the well pad.
- 2. The reserve pit shall be constructed to a minimum depth of four (4) feet below ground level. The reserve pit shall be constructed, so that the cuttings in the reserve pit can be buried a minimum depth of three (3) feet below ground level. See Exhibit E Surface Reclamation/Restoration Requirements.
- 3. A synthetic or fabricated liner <u>12</u> mil in thickness shall be used to line the reserve pit. The liner shall meet ASTM standards that are designed to be resistant to the reserve pit contents.

WELL DRILLING REQUIREMENTS

2 of 5 pages

- 4. The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.
- 5. The reserve pit shall be constructed so as not to leak, break, or allow discharge of drilling muds. Under no circumstances will the reserve pit be cut to drain drilling muds on the well location.
- 6. The reserve pit shall not be located in any natural drainage.
- 7. The reserve pit shall be equipped to deter entry by birds, bats, other wildlife, and livestock, if the reserve pit contains any oil and/or toxic fluids.
- 8. Drilling muds shall be properly disposed of before the reserve pit is reclaimed. Drilling muds can be allowed to evaporate in the reserve pit or be removed and transported to an authorized disposal site. The reserve pit shall be backfilled when dry.
- 9. Dumping of junk or trash into the reserve pit is not allowed. Junk or trash shall be removed from within the reserve pit before the reserve pit is reclaimed. Junk or trash shall not be buried in the reserve pit.

E. Federal Mineral Materials Pit Requirements:

- 1. Caliche, gravel, or other related materials from new or existing pits on Federal mineral estate shall not be taken without prior approval from the authorized officer. Contact Jerry Dutchover at (505) 627-0236.
- 2. Payment for any Federal mineral materials that will be used to surface the access road and the well pad is required prior to removal of the mineral materials.
- 3. Mineral Materials extracted during construction of the reserve pit may be used for development of the pad and access road as needed, for the <u>LL & E "B" Federal #1</u> gas well only. Removal of any additional material on location must be purchased from BLM prior to removal of any material.
 - a. An optional mineral material pit may be constructed within the archaeologically cleared area. The mineral material removed in the process can be used for pad and access road construction. However, a mineral material sales contract must be purchased from the BLM prior to removal of any material.

F. Well Pad Surfacing Requirement:

The well pad shall be surfaced with <u>6</u> inches of compacted caliche, gravel, or other approved surfacing material. The well pad shall be surfaced prior to drilling operations. See <u>Permanent Resource Road Requirements</u> - EXHIBIT D - requirement #4, for road surfacing.

G. Cave Requirements:

- 1. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease. Contact <u>Larry Bray</u> at (505) 627-0250.
- 2. The BLM Authorized Officer will, within 24 hours of notification in "A" above, conduct an on-the-ground field inspection for karst. At the field inspection the authorized field inspector will authorize or suggest mitigating measures to lessen the damage to the karst environment. A verbal order to proceed or stop the operation will be issued at that time.

WELL DRILLING REQUIREMENTS

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III. DRILLING OPERATION REQUIREMENTS:

A. GENERAL DRILLING REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 in sufficient time for a representative to witness:
- A. Spudding B. Cementing casing: 85% inch 51/2 inch C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

B. CASING:

- 1. The 85% inch surface casing shall be set at 950' and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the 5½ inch intermediate casing is cement shall extend upward a minimum of 500 feet above the uppermost perforation.

C. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- a. The results of the test shall be reported to the appropriate BLM office.
- b. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- c. Testing must be done in a safe workman-like manner. Hard line connections shall be required.