Form 3160-3
(April 2004)

OCD-HOBBS

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NMNM-115422**

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. <36013> **Ike Federal #1**

2. Name of Operator **BC OPERATING, INC.** <160825>

9. API Well No. **30-025-38151**

3a. Address **P.O. Box 50820, Midland, TX 79710**

3b. Phone No. *(include area code)* **(432) 684-9696**

10. Field and Pool, or Exploratory **Paduca ~~East~~ Delaware**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface **660' FSL & 660' FWL** Unit M

At proposed prod. zone **same**

11. Sec., T. R. M. or Blk. and Survey or Area **Section 28, T-25-S, R-32-E, N.M.P.M.**

14. Distance in miles and direction from nearest town or post office* **36 miles W/NW of Jal, NM**

12. County or Parish **Lea**

13. State **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
660'	**320.0**	**SW/4SW/4**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
N/A	**4800'**	**NM-2572**
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3357' GL	**9/1/06**	**15 days**

24. Attachments **Lea County Controlled Water Basin**

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.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature — Name *(Printed/Typed)* **Kenneth C. Dickeson** — Date **8/4/06**

Title **Authorized Agent**

Approved by *(Signature)* **/s/ Don Peterson** — Name *(Printed/Typed)* **/s/ Don Peterson** — Date **SEP 12 2006**

Title ACTING **FIELD MANAGER** — Office **CARLSBAD FIELD OFFICE**

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.

APPROVAL FOR 1 YEAR

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.

**(Instructions on page 2)*

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

GWW

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. Frances 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
30-025-38151	49460	Paduca Delaware

Property Code	Property Name	Well Number
36013	IKE FEDERAL	1

OGRID No.	Operator Name	Elevation
160825	BC OPERATING, INC.	3357'

Surface Location

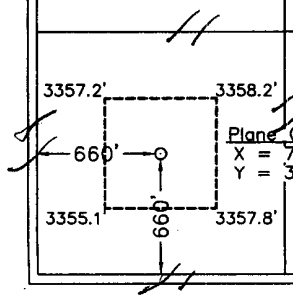
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	28	25 S	32 E		660	SOUTH	660	WEST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
~~320~~ 40			

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



Plane Coordinate
X = 700,455.5
Y = 399,186.4

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

OPERATOR CERTIFICATION

I hereby certify the 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 interestin 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 7-25-06 Date

Kenneth C. Dickeson
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 supervison and that the same is true and correct to the best of my belief.

May 26, 2006
Date of Survey LVA

Signature & Seal of Professional Surveyor

12185

W.O. Num. 2006-0476

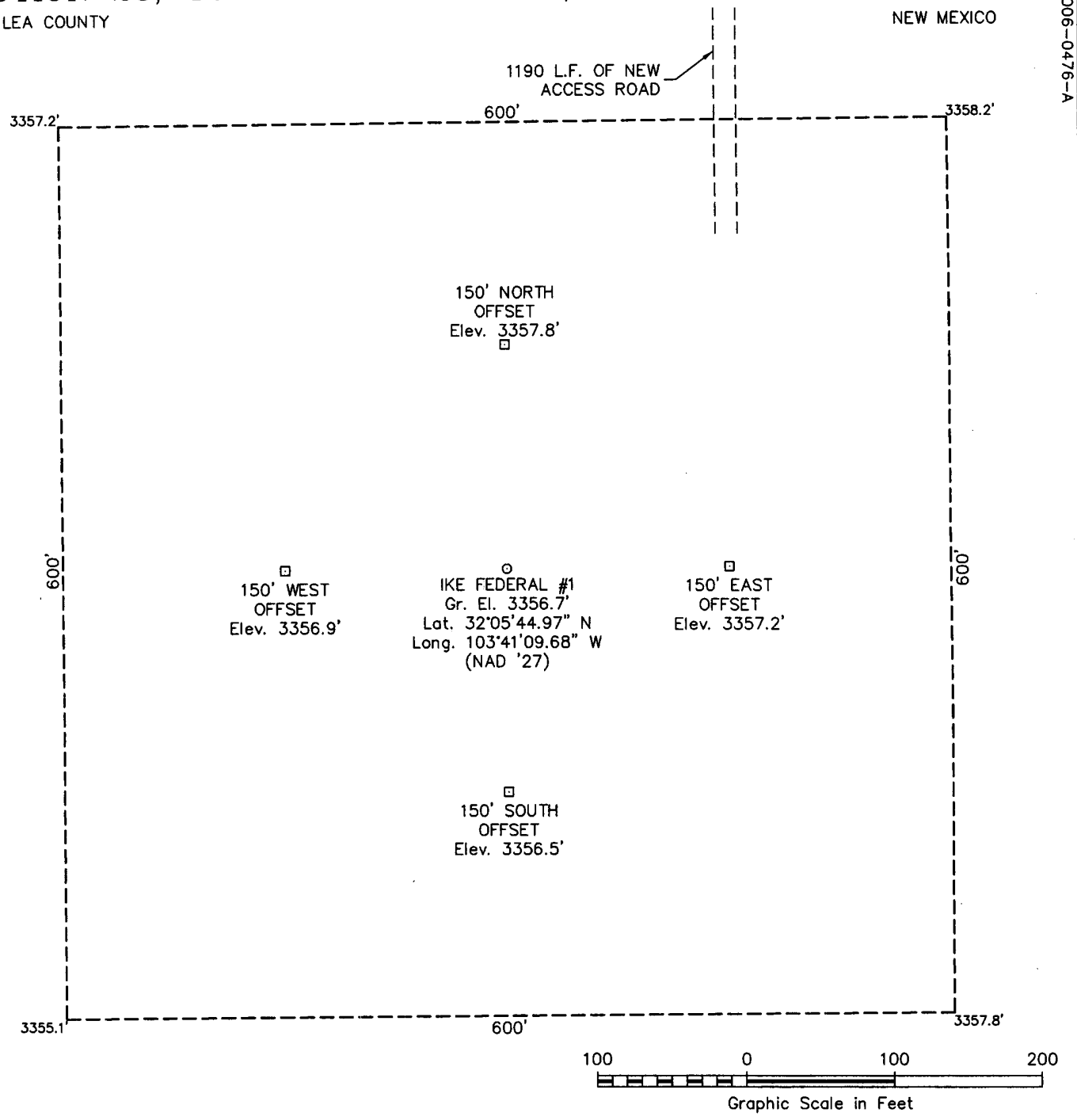
Certificate No. MACON McDONALD 12185

SECTION 28, TOWNSHIP 25 SOUTH, RANGE 32 EAST, N.M.P.M.

LEA COUNTY

NEW MEXICO

L-2006-0476-A



DRIVING DIRECTIONS

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND ORLA ROAD ABOUT 30 MILES WEST-NORTHWEST OF JAL, NM, GO SOUTH ON SAID ORLA ROAD APPROXIMATELY 6.0 MILES TO MONSANTO ROAD ON THE WEST (RIGHT) SIDE OF THE ROAD, THEN GO WEST ALONG SAID MONSANTO ROAD AND FOLLOW FLAGGED OUT ROAD TO A POINT WHERE A PROPOSED ROAD IS STAKED OUT TO THE SOUTH, THEN GO SOUTH ALONG PROPOSED ROAD APPROXIMATELY 1200 FEET TO PROPOSED LOCATION.

BC OPERATING, INC.

IKE FEDERAL #1

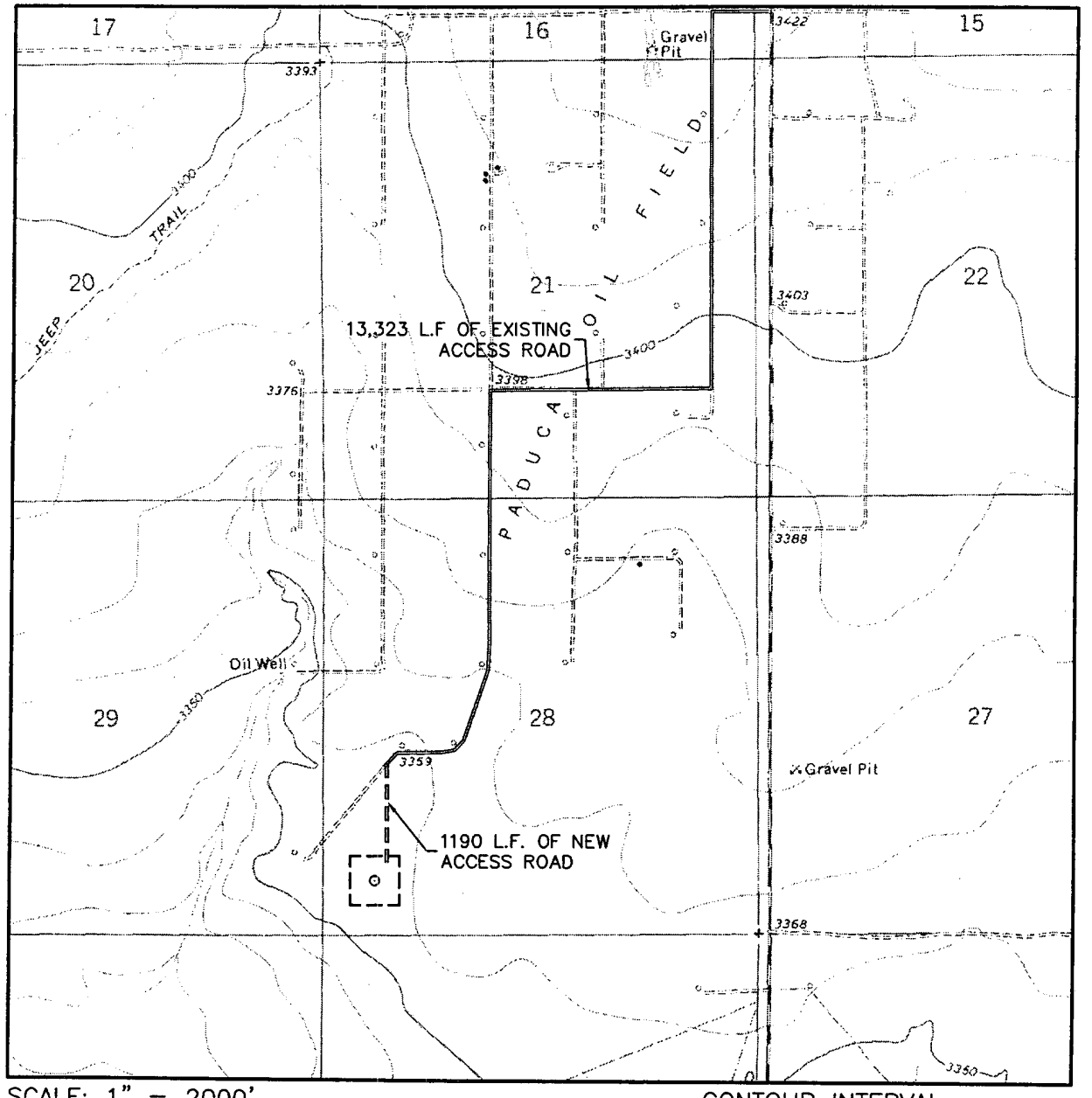
Located 660' FSL & 660' FWL, Section 28
Township 25 South, Range 32 East, N.M.P.M.
Lea County, New Mexico

Drawn By: LVA	Date: May 30, 2006
Scale: 1"=100'	Field Book: 331 / 22-24
Revision Date:	Quadrangle: Paduca Breaks West
W.O. No: 2006-0476	Dwg. No.: L-2006-0476-A

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PADUCA BREAKS WEST – 10'

SEC. 28 TWP. 25-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 660' FSL & 660' FWL

ELEVATION 3357'

OPERATOR BC OPERATING, INC.

LEASE IKE FEDERAL

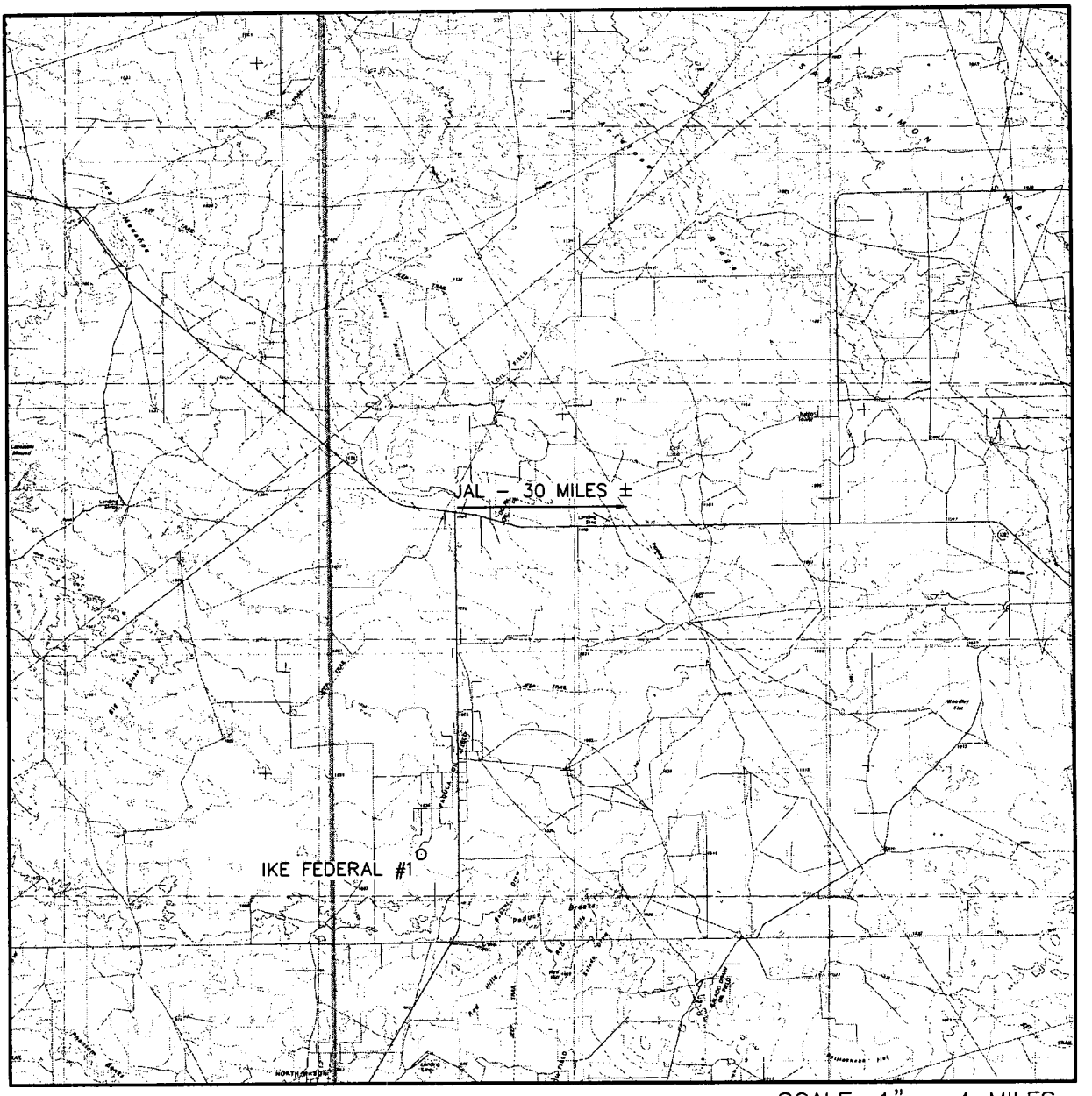
U.S.G.S. TOPOGRAPHIC MAP
PADUCA BREAKS WEST

NORTH

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 – (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 4 MILES

SEC. 28 TWP. 25–S RGE. 32–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 660' FSL & 660' FWL

ELEVATION 3357'

OPERATOR BC OPERATING, INC.

LEASE IKE FEDERAL

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687–0865 – (432) 687–0868 FAX

DRILLING PROGRAM

B.C. OPERATING, INC.
Ike Federal #1
660' FSL & 660' FWL, Section 28, T-25-S, R-32-E,
Lea County, New Mexico
Lease №: NMNM-115422
(Exploratory Well)

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders #1 and #2, and all other applicable federal and state regulations.

1. Estimated tops of geological markers:

Rustler	1,150'
Salado	1,500'
Base Salt	4,315'
Lamar Lime	4,535'
Bell Canyon	4,570'

2. Estimated depths to water, oil or gas formations:

Fresh water	above 200'
Oil, gas & water	Abo

3. Pressure control equipment: The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a 3,000 psi double ram type preventer for drilling the intermediate hole. The blowout preventer stack for the production hole will consist of at least a double-ram blowout preventer and annular preventer rated to 5,000 psi working pressure. A diagram of the BOPs and choke manifold is attached. All BOPs and accessory equipment will be tested according to Onshore Order № 2 before drilling out.

4. Proposed casing program:

HOLE SIZE	INTERVAL	CASING SIZE	WEIGHT	GRADE, JOINT
WITNESS 12 ¼"	0-450'	8-5/8"	32#	K-55, ST&C
7-7/8"	450-4800'	5-1/2"	15.5#	J-55, ST&C

5. Proposed cementing program:
   - 16" conductor
   - 8-5/8" surface — 500 SX Class "C"
   - 5-1/2" production — 700 SX Class "C". TOC 1000'

6. Proposed mud system:

DEPTH	DESCR.	MUD WEIGHT	VISCOSITY	WATERLOSS
450'	Fresh water	8.6-8.8 ppg	28	NC
450-3,500'	Brine water	10.0	30-32	NC
3,500-TD	Gel/starch	10.2	34-36	8 cc

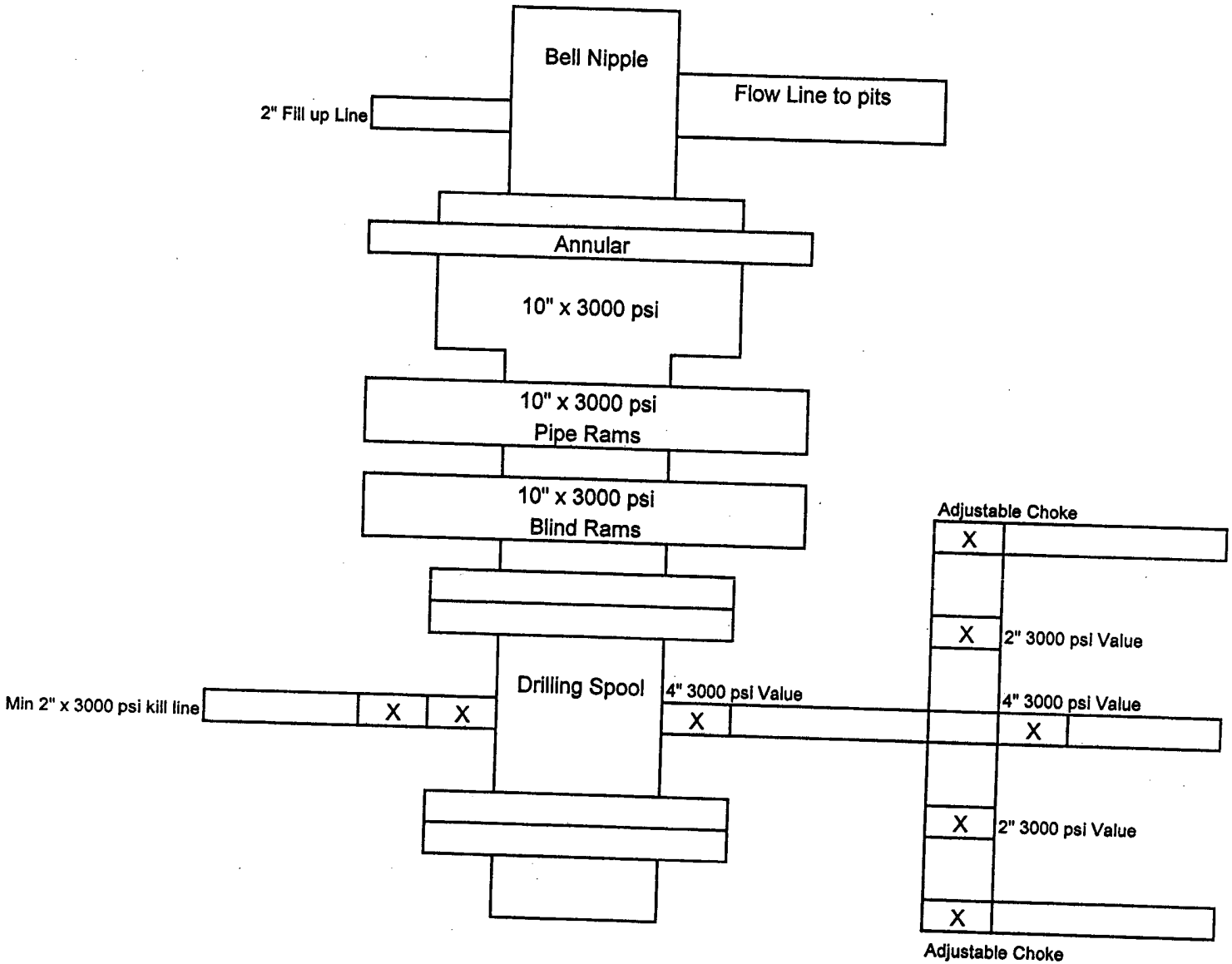
7. Testing, logging and coring programs:
   Samples 1000-4800'
   DSTs *None*
   Logging Gamma Ray, CNL, FDC, DLL
   Coring *No coring planned.*

8. Abnormal pressures and temperatures: *None anticipated.* Maximum bottom hole pressure should not exceed 3200 psi.
   This area has a potential H_2S hazard. An H_2S Drilling Plan is attached including a diagram of the drilling rig layout with H_2S monitors and wind direction indicators shown.

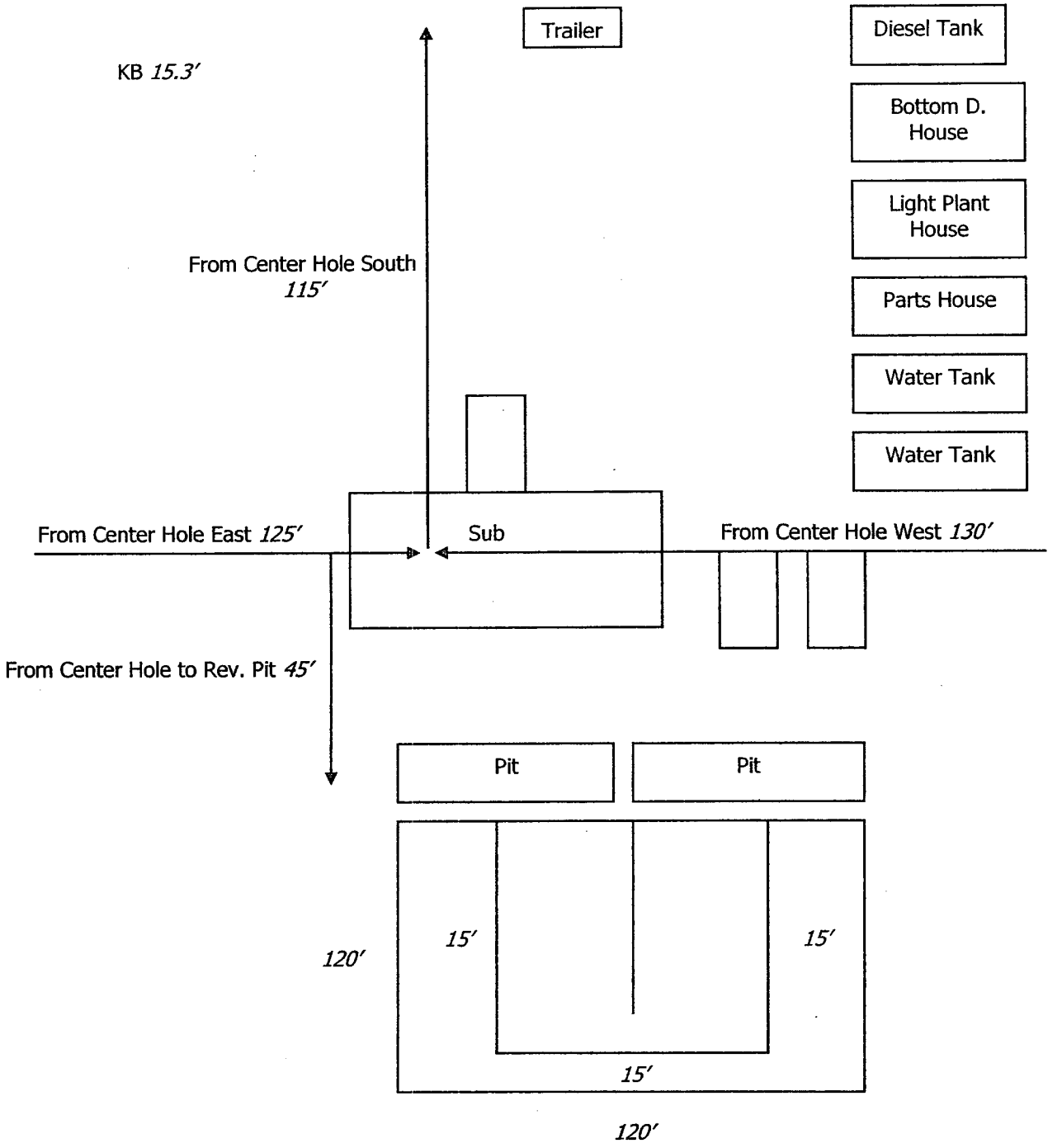
9. Anticipated starting date and duration of operations: Drilling will commence about ***September 15, 2006***. Drilling should be completed within **15 days** followed by completion operations.

Exhibit #2A

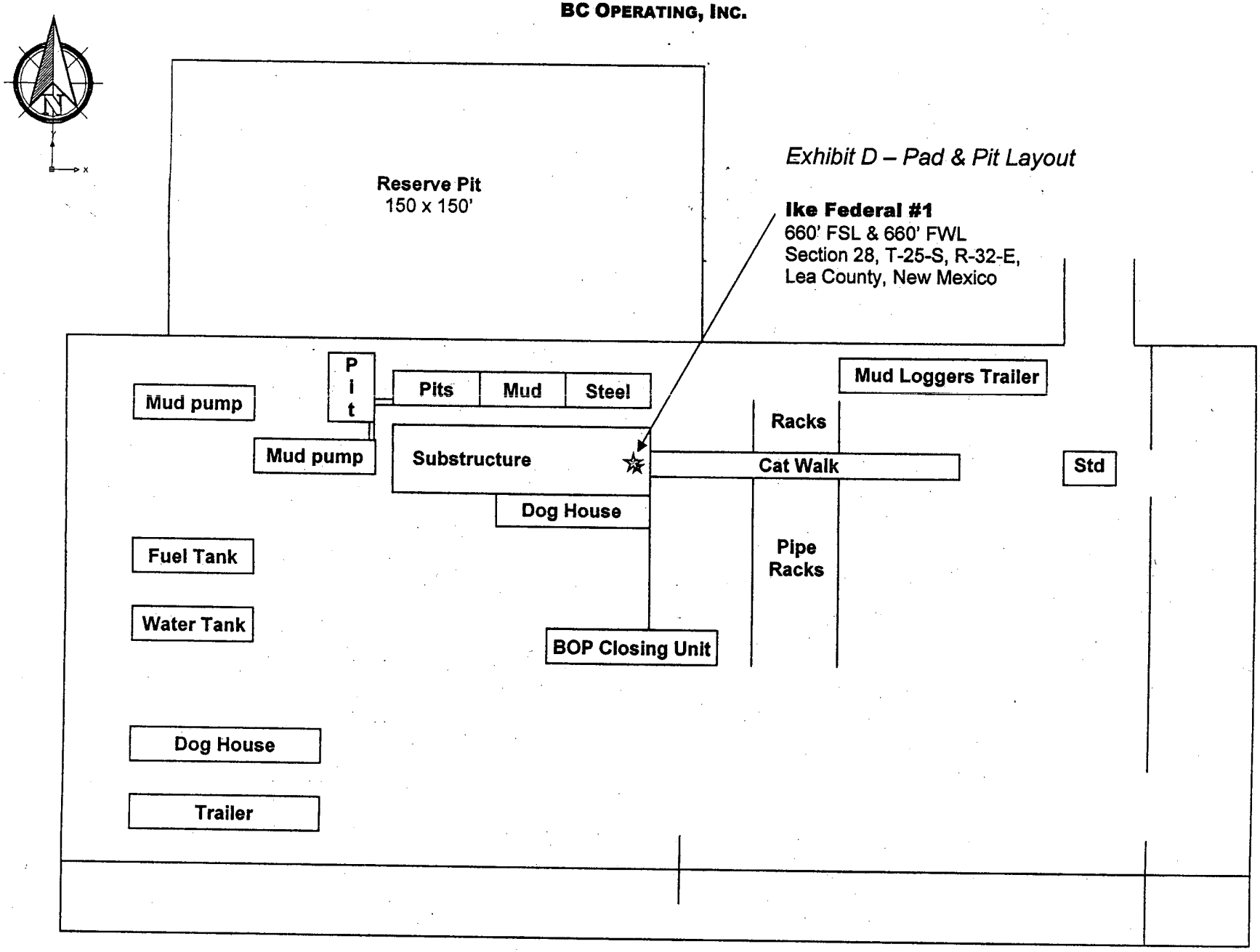
BOP Scematic for 8-3/4" or 7-7/8" Hole



Rig Layout


Trailer
Diesel Tank
KB 15.3'
Bottom D. House
Light Plant House
From Center Hole South 115'
Parts House
Water Tank
Water Tank
From Center Hole East 125'
Sub
From Center Hole West 130'
From Center Hole to Rev. Pit 45'
Pit
Pit
15'
15'
120'
15'
120'

BC OPERATING, INC.



H_2S Contingency Plan

B.C. OPERATING, INC.
Ike Federal #1

S/2 of Section 28, Township 25 South, Range 32 East, N.M.P.M.,
LEA COUNTY, NM

TABLE OF CONTENTS

SCOPE

This plan establishes the B.C. OPERATING, INC. guidelines for all company and contract employees whose duties may involve exposure to hydrogen sulfide gas (H_2S) on the *Ike Federal #1* location. This well is located 660 feet from the south line, 660 feet from the west line in Section 28 of Township 25 South, Range 32 East, Lea County, New Mexico. This plan also establishes procedure for isolation of the work site and evacuating the public on the condition that:

A. There is a release of H_2S that encompasses the radius of exposure (ROE) in this plan and,

B. There are persons and/or rods within the ROE and,

C. There is the endangerment of human and/or animal life within the ROE.

There are no homes located within one (1) mile either direction of this particular location.

OBJECTIVE

The objective of B.C. OPERATING, INC. is to:

A. Prevent any and all accidents, and to prevent the uncontrolled release of H_2S into the atmosphere and,

B. Provide proper evacuation procedures to cope with emergencies and,

C. Provide immediate and adequate medical attention should an injury occur.

It should be noted that B.C. OPERATING, INC. does not expect there to be any release of H_2S into the atmosphere but has taken the necessary steps to react properly to and control any hazards encountered on any of our facilities.

GENERAL EMERGENCY ACTION

In the event of an emergency, the following action should be initiated:

1. All personnel shall immediately evacuate to an upwind and uphill "safe breathing" area.

2. Those who must enter the hazard area must wear positive pressure self-containing breathing apparatus and must use other appropriate safety equipment as outlined on Page 10.

3. Isolate the well, if possible.

4. Use the "Buddy System" at all times.

5. Account for all personnel and take appropriate action as necessary for personnel safety.

6. Display the appropriate color warning flag to describe the type of emergency.

7. Contact B.C. OPERATING, INC. personnel at the earliest time available according to the emergency call out list on Page 4.

- The B.C. OPERATING, INC. supervisor will assess the situation and assign duties to various persons to bring the situation under control.
- Notification of local emergency response agencies and residents will be assigned by the B.C. OPERATING, INC. supervisor.
- Media inquiries are to be referred to:

B.C. OPERATING, INC.
P.O. Box 50820
Midland, TX 79710

BC OPERATING, INC.

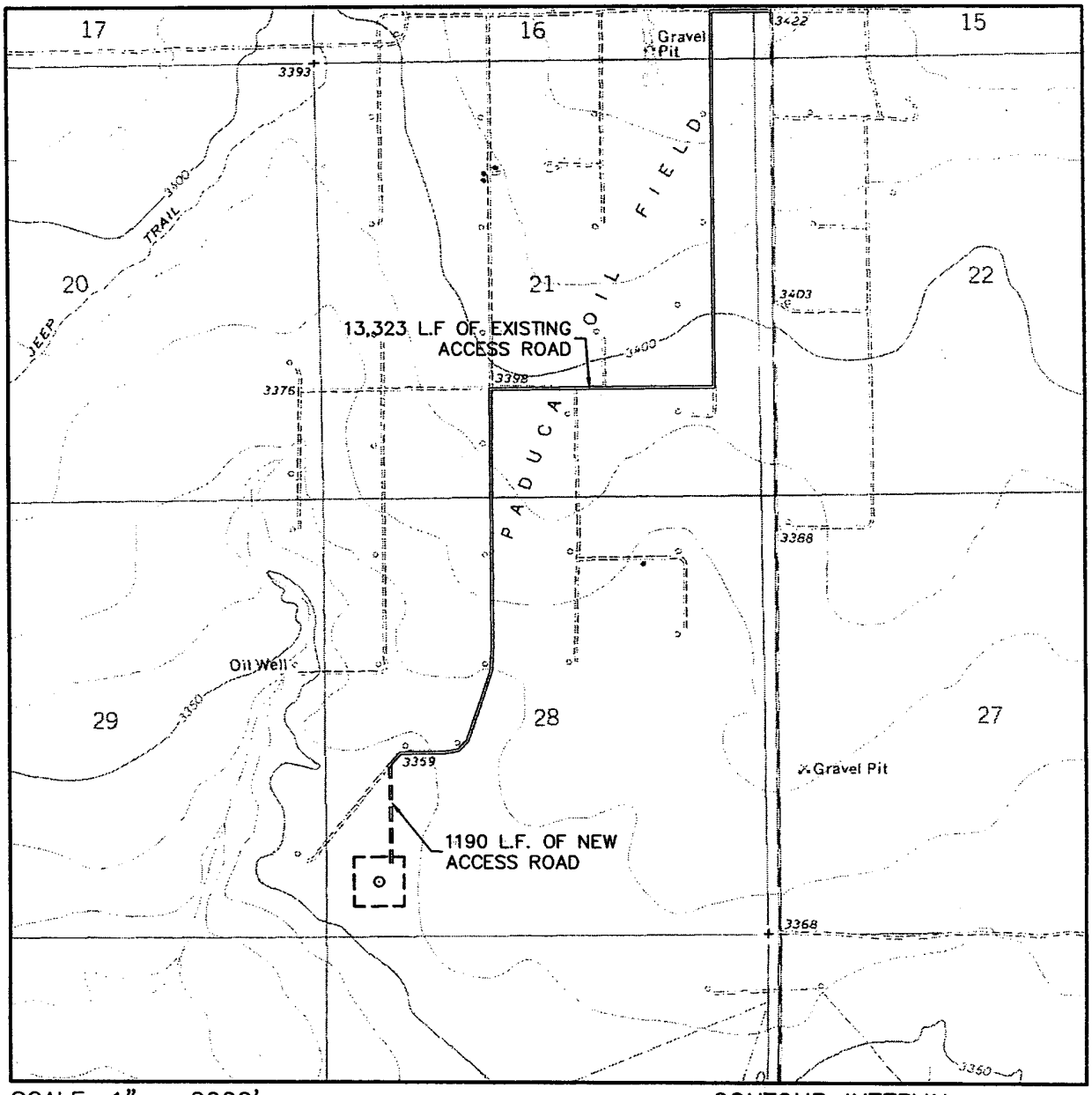
EMERGENCY CALL OUT NUMBERS

NAME	TITLE	OFFICE #	CELL #	HOME #
Jerry Livingston	Drilling Foreman	(432) 684-9696	(432) 664-3189	(432) 523-3755
Kevin Widner	Operations Manager	(432) 684-9696	(432) 425-4829	(432) 520-3557

Emergency Notification Numbers
Eddy, County

Organization or Agency	Phone Number
New Mexico State Police	(505) 885-3137
Eddy County Sheriff's Department	(505) 887-7551
Emergency Medical Service (Ambulance)	911
Eddy County Emergency Management	(505) 887-9511
State Emergency Response Center (SERC) Max Johnson (Chairman)	(505) 476-9620
Carlsbad Fire Department	911 or (505) 885-3125
Oil Conservation Division (District II)	(505) 748-1283
National Response Center (NRC)	(800) 424-8802

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PADUCA BREAKS WEST – 10'

SEC. 28 TWP. 25–S RGE. 32–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 660' FSL & 660' FWL

ELEVATION 3357'

OPERATOR BC OPERATING, INC.

LEASE IKE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
PADUCA BREAKS WEST

WEST COMPANY of Midland, Inc.
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687–0865 – (432) 687–0868 FAX

EMERGENCY PROCEDURES FOR UNCONTROLLABLE RELEASE OF HYDROGEN SULFIDE GAS (H_2S)

1. Secure and don self-contained breathing apparatus.

2. Remove all personnel to an upwind and uphill "safe breathing" zone.

3. Contact all concerned employees and immediate supervisor for instructions.

4. Take steps to protect and/or remove the general public to an upwind area away from the source of H_2S.

5. Deny entry to unnecessary personnel.

6. Notify necessary public safety personnel (for assistance in the evacuation of the general public and to help maintain roadblocks):

    a. State Police if on or near a **state road**
    b. Sheriff's Department if on or near a **county road**

7. Contact the Oil Conservation Division (OCD).

8. While attempting to control the release, maintain tight security and safety procedures.

9. Use the "Buddy System" when entering any hazardous areas.

The responsibility of this plan is with the B.C. OPERATING, INC. supervisor(s) who shall be in complete command during the emergency.

IGNITION PROCEDURES FOR UNCONTROLLABLE WELL CONDITIONS

The decision to ignite the well is the decision of the company supervisor(s). This decision should be made only as a last resort and in a situation where it is determined that:

- Human life and/or property are endangered
- There is no hope of controlling the blowout under the prevailing conditions at the well.

INSTRUCTIONS FOR IGNITING THE RELEASE

1. Two personnel are required for the ignition operation. They **must** wear positive pressure self-contained breathing apparatus and a D-ring style full body safety harness with a non-flammable safety rope attached. **(Must be an OSHA approved body harness)**

2. One (safety) person will test the atmosphere for explosive gases with an approved Triple-range (H_2S, O_2, LFL) monitor. The other person (company supervisor) is responsible for igniting the well.

3. Primary method of ignition shall be with the 25mm flare gun with range of approximately 500 feet.

4. Ignite up-wind and do not approach any closer than is warranted.

5. Select a safe ignition site which offers ultimate egress.

6. Before activating flare gun, check for presence of combustible gas.

7. After ignition, continue emergency action and procedure as before.

8. All unassigned personnel will limit their actions to those directed by the company supervisor.

After the well is ignited, burning H_2S will produce SO_2, which is also highly toxic. **Do not assume the area is safe after the well is ignited.**

A NO SMOKING POLICY shall be strictly enforced on location at all times.

EMERGENCY EQUIPMENT REQUIREMENTS

1. Respiratory Protection

   - **Rescue Units (SCBA's) :** One (1) unit shall be placed at each briefing area and 2 shall be stored in the safety trailer.

   - **Work/Escape Units:** Four (4) units shall be stored on the rig floor connected to the safety trailer with sufficient hose to allow workers to adequately perform duties with minimal restriction.

   - **Emergency Escape Units:** Four (4) units shall be stored in the top dog house for emergency evacuation purposes.

2. Signs and Flags

   - **One (1) Condition Sign shall be placed at location entrance with the following language:**

DANGER
H_2S

POTENTIAL DANGER (Green)

MODERATE DANGER (Yellow)

[redacted]

   - **Condition Flags shall be displayed at the sign in one of the following designations:**

Green / normal conditions **Yellow / potential danger** **Red/ danger, H_2S Present**

3. **Briefing Area:** Two (2) briefing areas, designated by signs, shall be located perpendicular to each other and be easily visible and readily accessible.

4. **Windsocks:** Two (2) windsocks shall be strategically placed where they are easily visible from all points.

5. Hydrogen Sulfide Detectors and Alarms:

- One (1) stationary H_2S monitor with three sensors shall be located on the rig in the top dog house. The H_2S monitor shall be calibrated to alarm at 10PPM for the low alarm (visual alarm) and 15 PPM for the high alarm (audible alarm). Calibrations shall be checked every 30 days or as needed. The sensors shall be located as follows:

#1 – Rig floor

#2 – Bell Nipple

#3 – Flow line or where the well bore fluid is discharged

- A gas sampling pump, with detector tubes capable of measuring H_2S gas, shall be located in the safety trailer.

6. Additional Rescue Equipment

- One Hundred Feet (100') of 5/8" OSHA approved rope.
- Two (2) OSHA approved full body harness
- One (1) Stretcher

7. Fire Extinguishers:

- One (1) 20#, Class ABC fire extinguisher shall be located in the safety trailer.

8. Communication:

- Cellular Phones/Mobile Phones or two- way radios shall be available via the vehicles on location and on the rig floor.

TOXIC EFFECTS OF HYDROGEN SULFIDE

Hydrogen sulfide (H_2S) is extremely toxic. The acceptable ceiling concentration for an eight (8) hour exposure is 10 PPM, which is .001% by volume. Hydrogen sulfide (H_2S) is colorless. Hydrogen Sulfide (H_2S) is heavier than air, the specific gravity is equal to 1.19 which is 20% heavier than ambient temp air which is 1.00. Hydrogen sulfide (H_2S) can form an explosive mixture with air between 4.3% and 46.0%. By volume hydrogen sulfide (H_2S) is as toxic as hydrogen cyanide and is between 5-6 times more toxic than carbon monoxide.

TOXICITY OF VARIOUS GASES

Common Name	*Chemical Formula*	*Specific Gravity*	*Threshold Limit*[1]	*Hazardous Limit*[2]	*Lethal Concentration*[3]
Hydrogen Cyanide	HCN	0.94	10 PPM	150 PPM/Hr	300 PPM
Hydrogen Sulfide	H_2S	1.189	10 PPM[4] 15 PPM[5]	100 PPM/Hr	600 PPM
Sulfur Dioxide	SO_2	2.21	2 PPM	N/A	100 PPM
Chlorine	CL_2	2.45	1 PPM	4 PPM/Hr	1000 PPM
Carbon Monoxide	CO	0.97	50 PPM	400 PPM/Hr	1000 PPM
Carbon Dioxide	CO_2	1.52	5000 PPM	5%	10%
Methane	CH_4	0.55	90,000 PPM	Combustible @ 5%	N/A

(1) Threshold limit – Concentration at which it is believed that all workers may be repeatedly exposed, day after day with out adverse effects also referred to as Time Weighted Average (TWA).
(2) Hazardous limit – Concentration that may cause death
(3) Lethal concentration – Concentrations that will cause death with short-term exposure
(4) Threshold limit – 10PPM – NIOSH guide to chemical hazards
(5) Short- term threshold limit – Concentration higher than Threshold limit with limits placed on time one can be exposed. Exposure time is limited to 15 minutes followed by one (1) hour in fresh air. This cycle can be repeated for (4) times during a normal eight (8) hour work day.

(Concentrations are calculated @ 15.00 psia and 60 degrees F.)

Concentrations		Physical Effects
0.001%	10 PPM	Obvious & unpleasant odor. Safe for an eight (8) hour exposure
0.005%	50 PPM	Can cause some flu-like symptoms and can cause pneumonia.
0.01%	100 PPM	IDLH[1]. Kills the sense of smell in 3 to 15 minutes. May irritate eyes and throat.
0.02%	200 PPM	Kills the sense of smell rapidly. Severely irritates eyes and throat. Severe flu-like symptoms after 4 or more hours may cause lung damage and/or death.
0.06%	600 PPM	Loss of consciousness quickly, death will result if not rescued promptly.

(1) Immediately dangerous to life or health

TOXICITY OF HYDROGEN SULFIDE

H_2S Per Cent (PPM)	0 - 2 Minutes	0 - 15 Minutes	15 - 30 Minutes	30 Minutes to 1 Hour	1 - 4 Hours	4 - 8 Hours	8 - 48 Hours
0.005 (50 ppm) 0.010 (100 ppm)				Mild Conjunctivitis; Respiratory Tract Irritation			
0.010 (100 ppm) 0.015 (150 ppm)		Coughing; Irritation of Eyes; Loss of Sense of Smell	Disturbed Respiration; Pain in Eyes; Sleepiness	Throat	Salivation & Mucous Discharge; Sharp Pain in Eyes; Coughing	Increased Symptoms*	Hemorrhage & Death *
0.015 (150 ppm) 0.020 (200 ppm)		Loss of Sense of Smell	Throat & Eye Irritation	Throat & Eye Irritation	Difficult Breathing; Blurred Vision; Light & Shy	Serious Irritating Effects	Hemorrhage & Death *
0-025 (250 ppm) 0.035 (350 ppm)	Irritation of Eyes; Loss of Sense of Smell	Irritation of Eyes	Painful Secretion of Tears; Weariness	Light & Shy; Nasal Catarrh; Pain in Eyes; Difficult Breathing	Hemorrhage & Death		
0-035 (350 ppm)		Irritation of Eyes; Loss of Sense of Smell	Difficult Respiration Coughing; Irritation of Eyes	Increased Irritation of Eyes & Nasal Tract; Dull Pain Head; Weariness; Light & Shy	Dizziness Weakness; Increased Irritation; Death	Death *	
0.050 (500 ppm)	Coughing Collapse & Unconsciousness	Respiratory Disturbances; Irritation of Eyes; Collapse	Serious Eye Irritation; Palpitation of Heart; Few Cases of Death*	Severe Pain in Eyes and Head Dizziness; Trembling of Extremities; Great Weakness & Death *			
0.060 (600 ppm) 0.070 (700 ppm) 0.080 (800 ppm) 0.100 (1000 ppm) 1.150 (1500 ppm)	Collapse * Unconsciousness Death *	Collapse * Unconsciousness Death *					

* Data secured from experiments of dogs, which have susceptibility similar to men/women. **PPM parts per million

THE USE OF SELF-CONTAINED BREATHING AIR EQUIPMENT

SCBA should be worn when:

- Working near the top or on top of any tank.
- Disconnecting any line where H_2S can reasonably be expected.
- Sampling air in the area to determine if toxic concentrations of H_2S exist.
- Working in areas where over 10 PPM of H_2S has been detected.
- At any time there is a doubt as to the H_2S level in the area to be entered.

Air quality testing shall be continuous throughout the entire operation if a container is breeched or in a hazardous location.

All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.

Facial hair and standard eyeglasses are not allowed with SCBA use.

Contact lenses are never allowed with the use of SCBA.

The SCBA shall be inspected monthly.

After each use, the SCBA shall be cleaned, disinfected, serviced, inspected and refilled to proper specifications.

RESCUE & FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING

Do not panic!

Remain calm and think with your head and not your heart.

Don breathing apparatus.

Protect yourself, then remove victim to fresh air as quickly as possible. When evacuating: walk not run, upwind and uphill from the source or crosswind to achieve upwind.

Notify emergency response personnel

Provide artificial respiration and /or CPR, as necessary.

Remove all contaminated clothing to avoid further exposure.

A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

CONDITIONS OF APPROVAL - DRILLING

Well Name & No.	**Ike Federal #1**
Operator's Name:	**BC Operating, Inc.**
Location:	**660 FSL, 660 FWL, Section 28, T-25-S, R-32-E**
Lease:	**NMNM-115422**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: **8-5/8** inch **5-1/2** inch

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the **Delaware** Formation. A copy of the plan shall be posted at the drilling site.

3 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.

4. 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.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The **8-5/8** inch surface casing shall be set **a minimum of 25' into the Rustler approximately 815'**, below usable water 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 **5-1/2** inch production casing is **cement shall extend a minimum of 200' inside the surface casing.**

Alternative Conditions of Approval for Lea County are attached.

III. 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 **8-5/8** 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) is **3000** psi.
   BOP schematic is lacking a valve on the manifold side of the drilling spool – Onshore Order No. 2.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- 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.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

ALTE. .ATIVE CONDITIONS OF APPROV.L - DRILLING

Drilling Fluids, Casing and Cementing Requirements for Most of Lea County:

Casing and Cementing

Surface casing is to be set at a sufficient depth to protect useable water zones and cement circulated to surface. In areas where the salt section (Salado) is present, surface casing should be set at least 25 feet into the top of the Rustler Anhydrite and cement circulated to the surface.

As an alternative, surface casing may be set through the Santa Rosa Formation or other potable water bearing zones and circulate cement to surface. For wells requiring an intermediate casing string, such string shall be cemented to the ground surface. In the case where intermediate casing is not required the operator shall case and cement the production hole to the ground surface.

While drilling from the surface casing to the Rustler formation it is recommended that operators periodically sweep the hole with viscous low water loss pills to help build a filter cake across useable water zones in the redbeds.

Drilling Fluid

Fresh water or fresh water spud mud shall be used to drill to surface casing depth. If surface casing is set at a lesser depth than the top of the Rustler formation., fresh water spud mud may be used to drill down to the first salt in the Rustler Formation. after which brine or fresh water may be used.

Non-toxic or biodegradable water based polymers, drilling paper, starch and gels may be used in the mud system in order to retard seepage into the redbeds.

Two to five percent diesel or crude oil may be used in the redbed section in order to control heaving shales and mudstones.

Caustics and Lime shall not be used in the red beds but may be added when the Rustler formation is reached. However, sodium carbonate maybe used for alkalinity or ph control while drilling the redbeds above the Rustler formation.

Additionally, questions of whether an additive may be used should be referred to the Roswell Field office.

District I
1625 N. French Dr., Hobbs, NM 88240
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 Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

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

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: B.C. OPERATING, INC. Telephone: (432) 683-2950 e-mail address: kwidner@usaonline.net
Address: P.O. Box 50820, Midland, TX 79710
Facility or well name: Ike Federal # 1 API #: 30-025-38151 U/L or Qtr/Qtr M Sec 28 T 25S R 32E
County: Lea Latitude 700,455.5 Longitude 399,186.4 NAD: 1927 ☒ 1983 ☐
Surface Owner: Federal ☐ State ☒ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 14 mil Clay ☐ Pit Volume 24,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	**0 points**

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil 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 my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 9/25/06
Printed Name/Title Kenneth C. Dickeson, Authorized Agent Signature _____

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title GARY W. WINK / STAFF MGR Signature Gary W. Wink Date: 10/2/06

Ike Federal #1
B.C. OPERATING, INC.

The reserve pit will be to the North. The Southeast corner of the pit will be approximately 60' North of the well bore. The pit will be 150' x 150' and 6' deep with a capacity of 24,000 bbls.

Standard reserve pit. All reserve pits that are horse shoe size vary with the depth of the well.