

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

B. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Ludwick Exploration Company

3. ADDRESS OF OPERATOR

P.O. Box 70

Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

840' FNL, 840' FEL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

29 miles from Farmington, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any)

840'

16. NO. OF ACRES IN LEASE

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

P&A 180'

19. PROPOSED DEPTH

1500' P.C.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6576 Gr.

22. APPROX. DATE WORK WILL START*

4-1-1980

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
7-7/8	5 1/2	15.5 15.5	950'	200 Cuft-Circulate
4-3/4	2-7/8	6.5	1500'	75 Cuft-TC 700'

1. Set 5 1/2 surface @ 950, cement with 200 Cuft and circulate cement.
2. Air drill 4-3/4 hole thru Pictured Cliffs to TD 1500'.
3. Set 2-7/8 production casing @ 1500', cement with 75 Cuft, bring cement back to 750' inside 5 1/2.
4. Perforate and breakdown zones which indicated natural flow during drilling.

RECEIVED

FEB 27 1980

U.S. GEOLOGICAL SURVEY

Gas not dedicated
See Attached Details.

RECEIVED

APR 8 1980

OIL CON. COM.

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

24.

SIGNED

Glenn C. Kennedy

TITLE Agent

DATE 2-22-1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED

APR 4 1980

DISTRICT ENGINEER

*See Instructions On Reverse Side

NMOCC

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

P. O. BOX 2000

Form C-107

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Revised 10-1-78

All distances must be from the outer boundaries of the Section

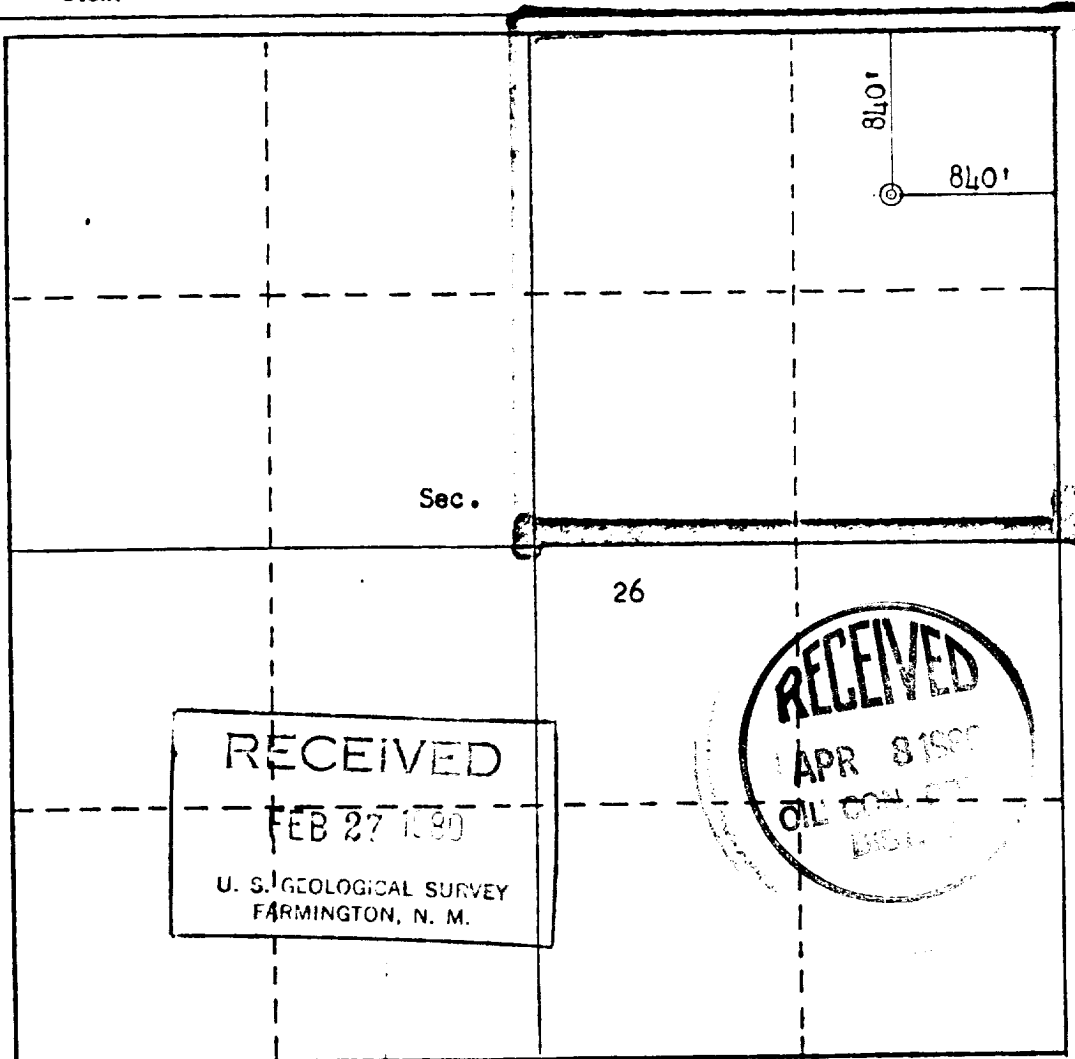
Operator LUDWICK EXPLORATION COMPANY			Lease KEN-NO-TO		Well No. 1
Unit Letter A	Section 26	Township 25N	Range 11W	County San Juan	
Actual Footage Location of Well: 840 feet from the North line and 840 feet from the East line					
Ground Level Elev. 6576	Producing Formation Pictured Cliffs		Pool Wildcat		Dedicated Acreage: 160 Acres

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

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

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

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



CERTIFICATION

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

Claude C. Kennedy
Name
Claude C. Kennedy

Position
Agent

Company
Ludwick Exploration

Date
2-22-1980

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 knowledge and belief.

Date Surveyed
February 22, 1980
Registered Professional Engineer
and/or Land Surveyor
Fred B. Kerr
Fred B. Kerr
Certificate No. B. KERR.
3950

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NOO-C-14-20-5249 5255

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Allotted

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Aen-no-to

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

P. C. Wildcat

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

26, T25N, R11W

12. COUNTY OR PARISH

San Juan

13. STATE

N. M.

1.

OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

**Ludwick Exploration Company
P. O. Box 70**

3. ADDRESS OF OPERATOR

Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

*** 840' FNL, 840' FNL**

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6576 Gr.

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON* ☐

CHANGE PLANS ☐

Amendment

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other)

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The attached BOP Schematic replaces the
schematic as furnished with APD dated 2-22-1980.

RECEIVED

MAR 03 1980

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

RECEIVED

APR 8 1980
OIL CON. COM.
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED

Frank A. Kennedy

TITLE

Agent

DATE

2-29-1980

(This space for Federal or State use only)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

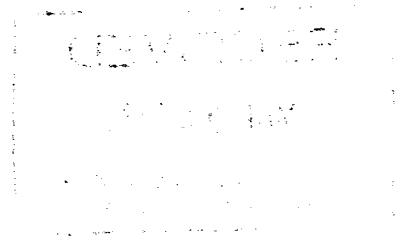
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-685229

GPO 8 37-499

867-851



LUDWICK EXPLORATION COMPANY

DEVELOPMENT PLAN FOR SURFACE USE

WELL: #1 KEN-NO-TO

LOCATION:

840'FNL, 840'FEL
Sec. 26, T25N, R11W
San Juan County, New Mexico

LEASE NUMBER:

N00-C-14-20-5249

LUDWICK EXPLORATION COMPANY

P. O. Box 70
FARMINGTON, NEW MEXICO 87401

February 22, 1980

District Engineer
U.S. Geological Survey
P.O. Box 959
Farmington, New Mexico 87401

Subject: Surface Use Development Plan
No. 1 KEN-NO-TO
Wildcat Pictured Cliffs Test
NE/4 of Section 26-T25N-R11W
San Juan County, New Mexico

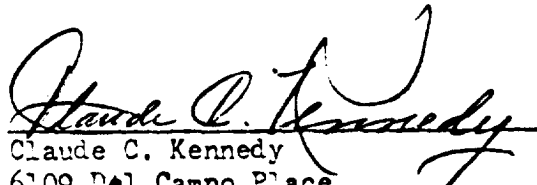
The subject development plan for the proposed Ludwick Exploration Company KEN-NO-TO 1 is as follows:

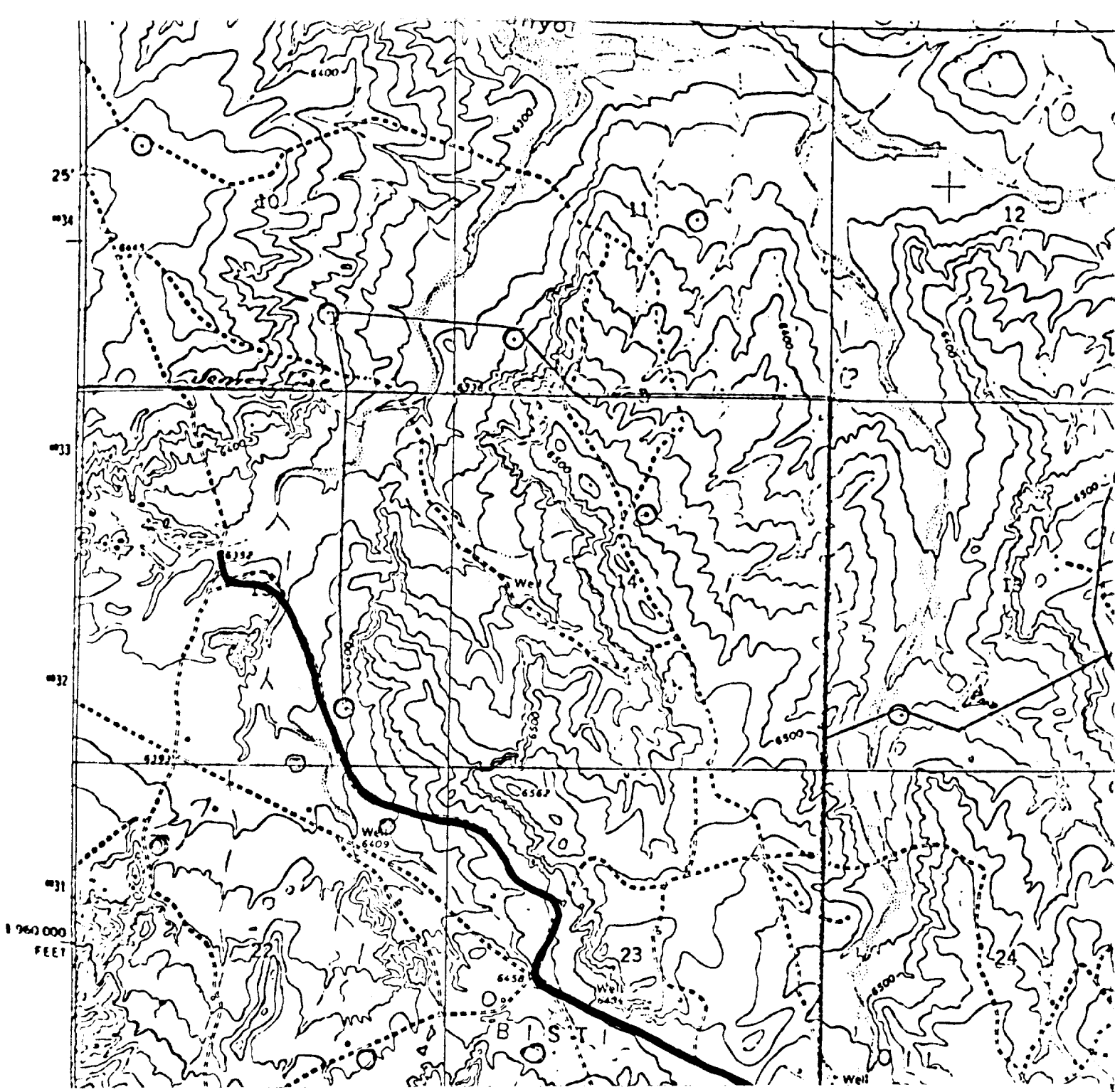
1. Per the attached plat, there is an existing road leading to this well.
2. No new access roads will be necessary.
3. A map is attached showing offset existing wells.
4. Location of tank batteries and production facilities are shown on the attached plat. The well is located in East Bisti Unit with extensive surrounding production facilities.
5. Water for drilling and completion work will be hauled in from Bloomfield.
6. Materials necessary for the construction of a drilling pad will be obtained from the location.
7. Waste materials will be collected in the unlined earthen drilling mud pit. These materials will be buried upon completion of the well.
8. No permanent campsites or airstrips are anticipated.
9. Refer to the attached Well Site Layout plat. No major earth cuts are anticipated.

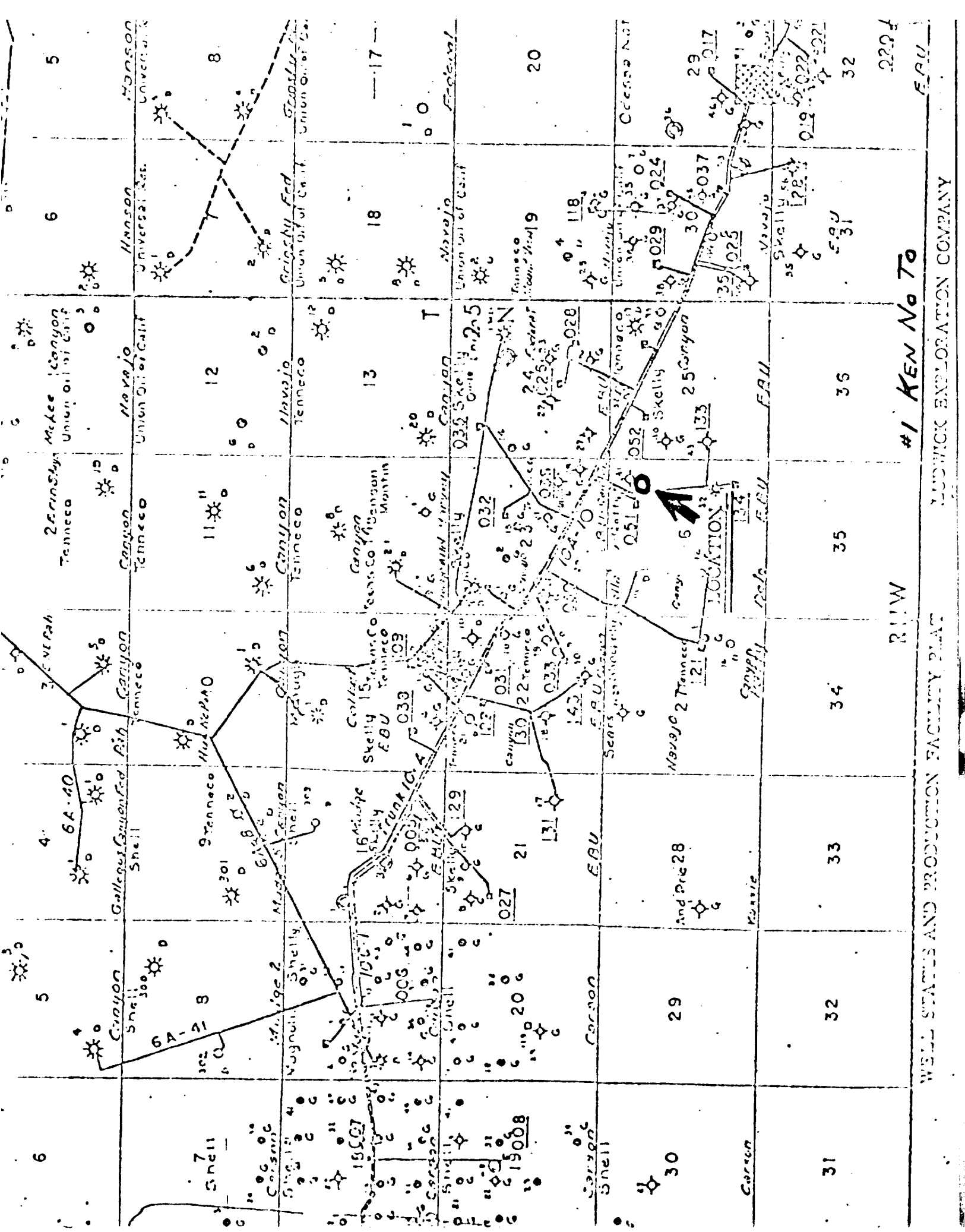
10. The proposed wellsite is located in a sandy, sparsely vegetated desert type area. There are no Indian habitations or artifacts in the immediate vicinity.
11. Please refer to the Archeological Report to be submitted to your office.
12. Ludwick Exploration Company's representative is:
James Ludwick Telephone 505 325-1079
Claude C. Kennedy Telephone 505 883-9624

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 exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Ludwick Exploration Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

February 22, 1980


Claude C. Kennedy
6109 Del Campo Place
Albuquerque, New Mexico 87109
Telephone: 505 - 883-9624





LUDWICK EXPLORATION COMPANY

FORMATION INFORMATION AND DRILLING PRACTICE

WELL: #1 KEN-NO-TO

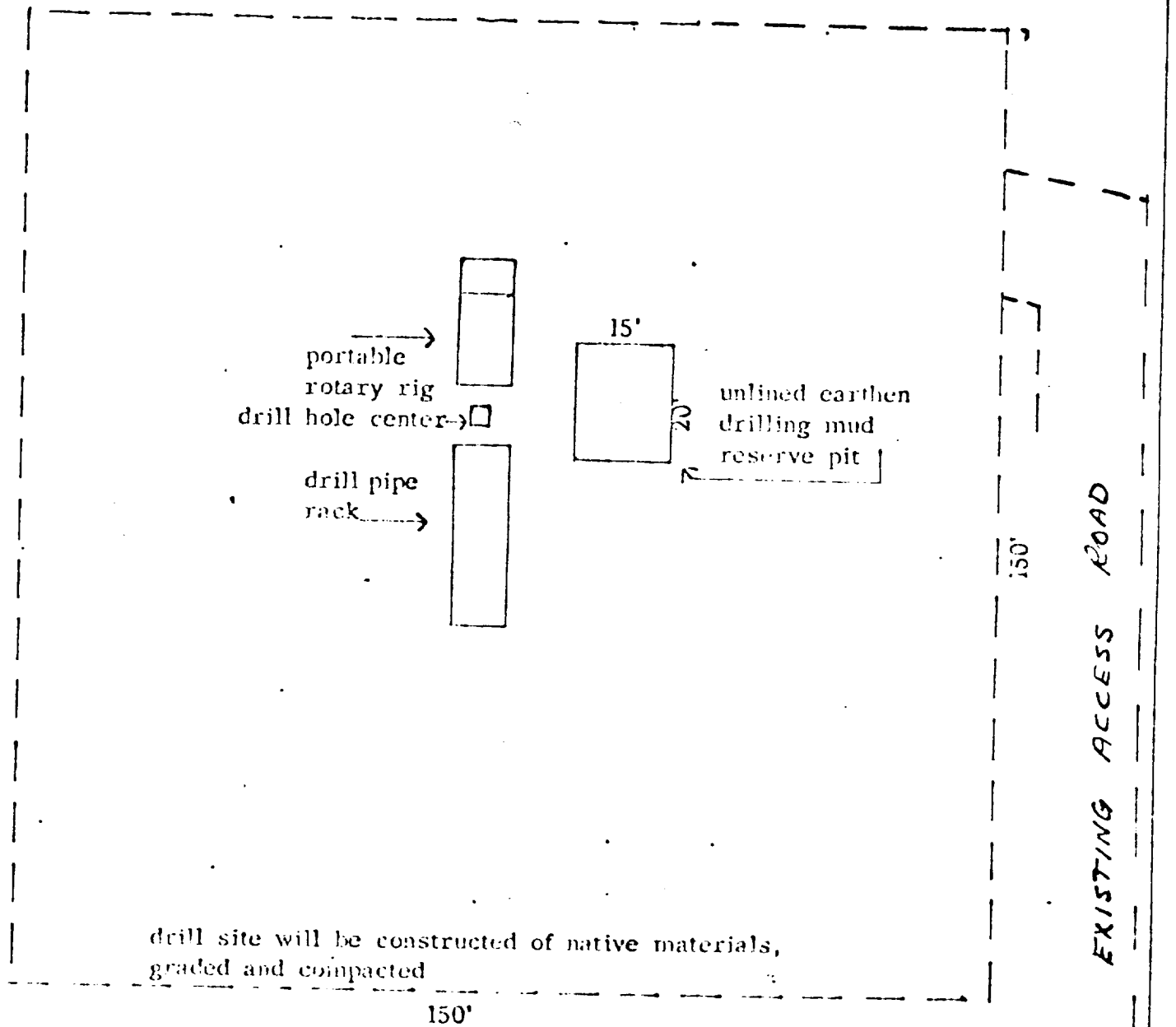
LOCATION:

840' FNL, 840' FEL
Sec. 26, T25N, R11W
San Juan County, New Mexico

LEASE NUMBER:

NOO-C_14-20-5249

LUDWICK EXPLORATION COMPANY
DRILL SITE LAYOUT & CROSS SECTION
NO. 1 KEN No 70



cross sectional view

mud pit

ungraded ground elevation

SUPPLEMENT TO FORM 9-331C

WELL: NO. 1 KEN-NO-TO

1. SURFACE FORMATION OF DRILL SITE: Animas Sandstone

2. ESTIMATED FORMATION TOPS:

Top Ojo Alamo	500
Base Ojo Alamo	640
Fruitland	1150
Pictured Cliffs	1420

3. WATER AND HYDROCARBON BEARING FORMATIONS:

Fresh Water	0-640
Gas	1300-1500

4. CASING AND CEMENT PROGRAM:

New $5\frac{1}{2}$ " 15.5# K-55 and 2-7/8" 6.5# K-55 casing will be used and pressure tested to 500 psi for 30 minutes prior drilling out and perforating. Regular cement will be used to cement surface casing. A light 50-50 Pozmix cement slurry followed by a neat cement w/2% CaCl will be used for production casing.

5. SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT:

The attached schematic shows the type of blow out preventer to be used while drilling. The unit will be tested to 200 psi as soon as possible after its installation on the surface pipe. Testing will be done with the rig pump. This is a manual type preventer, and its operation will be manually checked when practical.

6. MUD PROGRAM:

Native Mud & Water 0-950; Air 950-1500'.
We do not foresee any drilling hazards based on extensive offset drilling data.

7. AUXILIARY EQUIPMENT:

- a. bit float.
- b. full opening stabbing valve to be used when kelly is not in the string.

8. LOGGING PROGRAM:

CNL-FDC	-TD to surface
IES	-TD to surface

Page -2

SUPPLEMENT TO FORM 9-331-C

9. ABNORMAL TEMPERATURES, PRESSURE, OR HAZARDOUS CONDITIONS:
None Expected.

10. STARTING DATE:

Anticipated starting date is 4-1-1980.
Approximately six days will be needed to build roads
and location and drill the well to total depth. If
commercial, completion will commence immediately and
require ten days.



SHAFFER HYDRAULIC BLOWOUT PREVENTERS

(Patented)

TYPE LWS PREVENTERS—8", 3000 lb. & 5000 lb.—10", 5000 lb.
12", 3000 lb.—13 1/8", 5000 lb.—16", 3000 lb.

PARTS AND DIMENSIONAL ILLUSTRATIONS

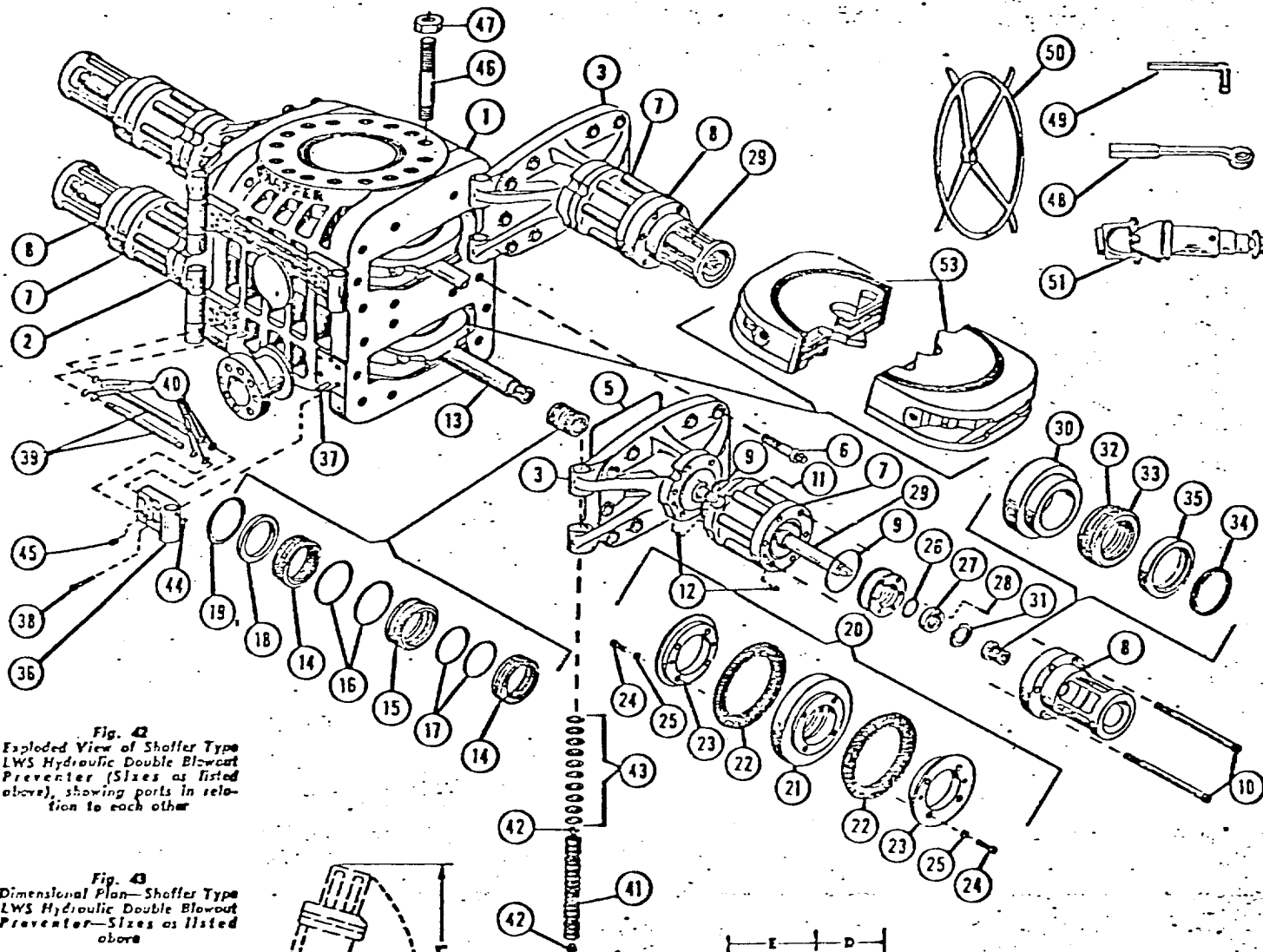


Fig. 42
Exploded View of Shaffer Type
LWS Hydraulic Double Blowout
Preventer (Sizes as listed
above), showing parts in rela-
tion to each other

Fig. 43
Dimensional Plan—Shaffer Type
LWS Hydraulic Double Blowout
Preventer—Sizes as listed
above

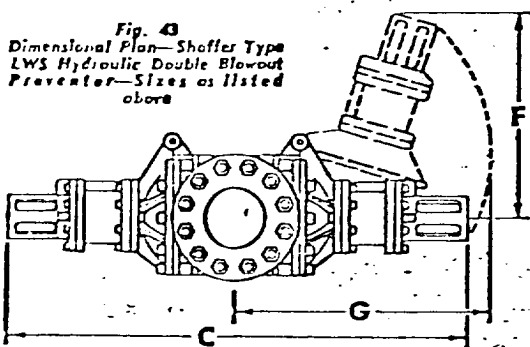
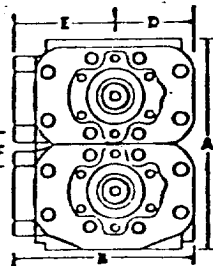


Fig. 44
Dimensional End Elevation—
Shaffer Type LWS Hydraulic
Double Blowout Preventer—
Sizes as listed above



STANDARD ACCESSORIES

- (50) 4 Hand Wheels
- (48) 1 Door Wrench
- (49) 1 Cylinder & Cylinder Head Wrench
- (51) 4 Universal Joints

DIMENSIONAL AND ENGINEERING DATA ON ABOVE SIZES OF TYPE LWS PREVENTERS

Refer to Figs. 43 and 44

Size	Max. Working Pressure, psi	Test Pressure, psi	Vertical Port	Max. Port Size	Approx. Weight, lbs.		A				B	C	D	E	F	G	Door Open To Charge Rams	Door Open To Charge Rams	Closing Ratio	Opening Ratio	U.S. Gal. Field To Close Rams	U.S. Gal. Field To Open Rams
					Studded Flange		Height															
					Single	Double	Studded Flange	Bolted Flange	Studded Flange	Bolted Flange	Width	Length	Center To Front	Center To Rear	Door Open To Charge Rams	Door Open To Charge Rams	Closing Ratio	Opening Ratio	U.S. Gal. Field To Close Rams	U.S. Gal. Field To Open Rams		
8"	2,000	8,000	8"	7"	.....	3,500	.....	.....	20 1/2"	41 1/2"	23 1/2"	75 1/2"	11 1/2"	14 1/2"	22"	46"	5.8 to 1	1.85 to 1	2.75	2.3		
10"	2,000	10,000	8"	7"	.....	3,500	.....	.....	20 1/2"	41 1/2"	23 1/2"	75 1/2"	11 1/2"	14 1/2"	22"	46"	5.8 to 1	1.85 to 1	2.75	2.3		
10"	8,000	10,000	11"	8 1/2"	5,000	7,000	24 1/2"	24 1/2"	23"	50 1/2"	25 1/2"	82 1/2"	12 1/2"	18"	22"	46"	1.5 to 1	1.5 to 1	2.25	2.7		
12 1/8"	3,000	6,000	12 1/8"	10 1/2"	.....	6,300	.....	.....	24 1/2"	47 1/2"	21 1/2"	82 1/2"	12 1/2"	18 1/2"	27"	53"	1.5 to 1	1.5 to 1	2.25	2.9		
12 1/2"	3,000	10,000	12 1/2"	10 1/2"	6,500	5,700	26 1/2"	26 1/2"	26"	45 1/2"	23 1/2"	82 1/2"	14 1/2"	18 1/2"	41"	54"	1.5 to 1	1.5 to 1	2.25	2.9		
16"	3,000	6,000	15 1/2"	12 1/4"	.....	7,500	.....	.....	26"	51"	25 1/2"	105 1/2"	11 1/2"	20 1/2"	22"	60"	3.5 to 1	1.5 to 1	2.8	2.9		