Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-031-20571

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [X] GAS WELL [ ] OTHER Wildcat SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Horace F. McKay, Jr. & William J. Mayhew

3. ADDRESS OF OPERATOR P.O. Box 14738
Albuquerque, New Mexico 87111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 695'FSL, 2225'FEL
At proposed prod. zone Same

5. LEASE DESIGNATION AND SERIAL NO.
NOO-C-14-20-2687

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Allotted

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat Mesaverde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 7, T19N, R6W

12. COUNTY OR PARISH
McKinley

13. STATE
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
6 miles southwest Star Lake Compressor Station

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 415'

16. NO. OF ACRES IN LEASE 160

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None

19. PROPOSED DEPTH 2250' Point Lookout

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6823 Gr

22. APPROX. DATE WORK WILL START* July 15, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11	7	24#	96	80 sx
6¼	4½	10.5#	2250	250 sx

See Attachments

Gas under this lease is not dedicated to a contract.

RECEIVED
JUN 25 1979
OIL CON. COM.
DIST. 3

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 locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED Original Signed By [illegible] TITLE Agent DATE 6-18-1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE JUN 21 [illegible]

CONDITIONS OF APPROVAL, IF ANY:

ok Brk

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Horace F. McKay, Jr. & William J. Mayhew	NAVAJO	1

Unit Letter	Section	Township	Range	County
O	7	19	6	MCKINLEY

Actual Footage Location of Well:
695 feet from the SOUTH line and 2225 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6822	Point Lookout	Wildcat	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

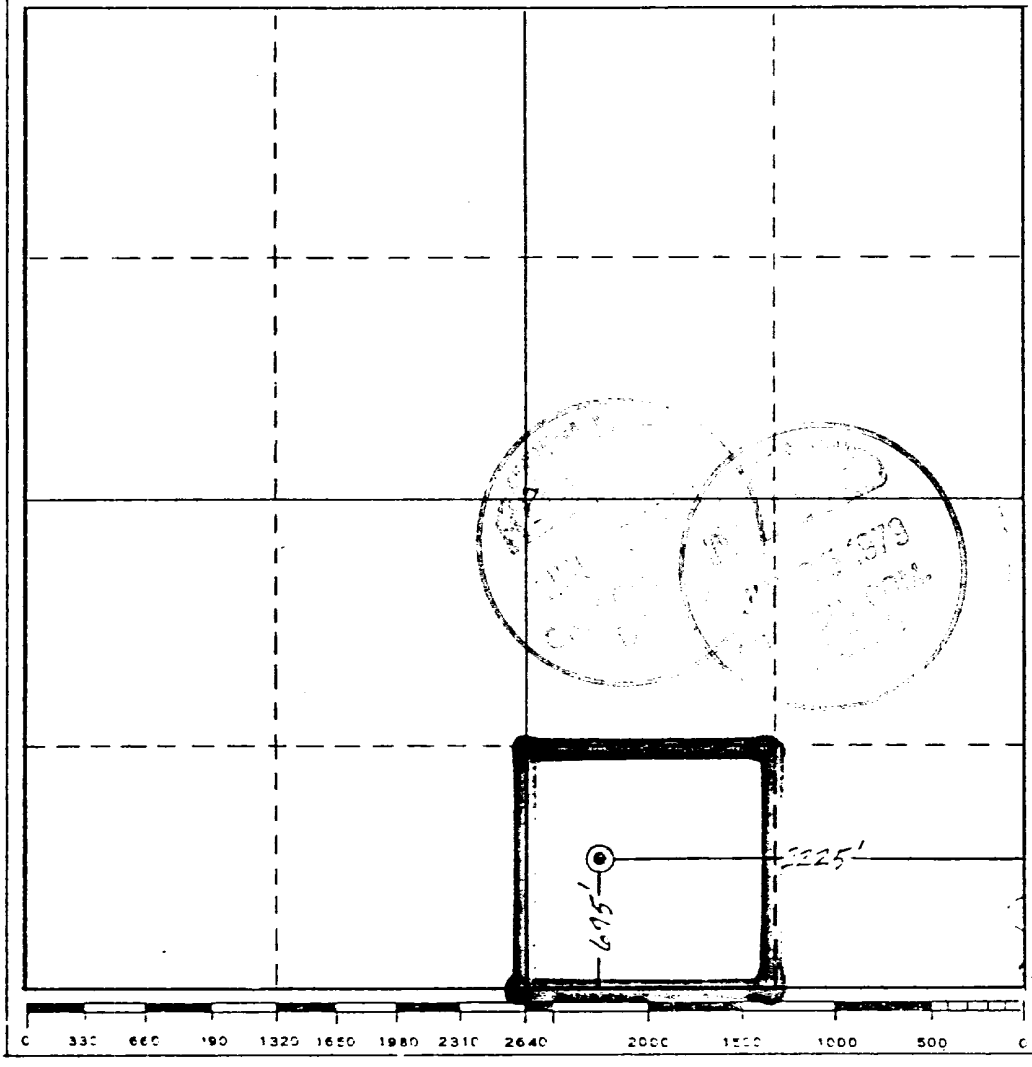
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Name: Claude C. Kennedy

Position: Agent

Company: Horace F. McKay, Jr. & William J. Mayhew

Date: 6-18-1979

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.

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
NEW MEXICO
JEFF F. LEESE
NO. 1463

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

HORACE F. McKAY, Jr.

and WILLIAM J. MAYHEW

DEVELOPMENT PLAN FOR SURFACE USE

WELL: #1 Navajo

LOCATION:

695'FNL, 2225'FEL
Sec. 7, T19N, R6W
McKinley County, N.M.

LEASE NUMBER:

NOO-C-14-20-2687

1. Existing roads. (Shown in green)

The attached topographic map shows all existing roads within one mile of the proposed location. All roads are in fair condition and will require a minimal amount of work to upgrade them to handle normal drilling activity traffic.

2. Planned Access Road. (Shown in red)

The new access road will be approximately 20' wide and 600' long. No cut, fill, turnouts, or culverts will be needed. No fences, gates or cattle guards will be crossed. Maximum grade will be 5%. Water bars will be used where needed to aid drainage and help prevent erosion.

3. Location of existing wells.

All wells (water, abandoned, disposal, and drilling) are shown and so labeled on the attached section layout.

4. Location of existing production facilities.

All production facilities for this well will be located on the site.

All tank batteries, production facilities or production, gathering and service lines within one mile of the proposed location are shown on the attached section layout.

5. Location and type of water supply.

Water for drilling will be trucked from Chapman's water hole, approximately 35 miles northwest of the location. This water is privately owned.

6. Source of construction material.

Any construction material required for road or location will be excess material accumulated during building of such sites.

7. Methods of handling waste material.

(Refer to attached well site layout.)

All material that can be safely burned will be so disposed when weather conditions permit.

All nonburnable waste (drilling fluids,, cuttings, chemicals, etc.) will be held in the reserve pit until dry, and then buried. Any oil that accumulates on the pit will be removed prior to leaving the pit to dry. Pits will be fenced during dry out, then completely back-filled with dirt prior to preparing the location for production or abandonment.

7. Any solid waste that can not be buried will be taken from the location and properly destroyed.

All portable chemical toilet will be supplied for human waste.

8. Ancillary facilities.

None planned.

9. Well site layout.

The attached layout shows the drilling rig with all supporting facilities. Cut and fill, required for pad construction, is also shown.

10. Plans for restoration of surface.

Restoration of the well site and access road will begin within 90 days of well completion, weather permitting.

Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed and leveled. Both road and location will have top soil replaced and will be reseeded when germination can occur.

Should the well be commercial, that portion of location not needed for operation will be repaired as above. The portion of the location needed for daily production operations, and the access road, will be kept in good repair and clean.

In either case, cleanup of the site will include burning any safely burnable material, filling of all pits, and proper disposal of any nonburnable material that can not be safely buried. Any oil that has accumulated on the pits will be trucked away.

11. Other information.

General topography of the area may be seen on the attached map.

This location is 1½ miles west of the Continental Divide at Deja Del Raton Mesa. The site has a small westerly slope. The area is sandy and is covered with sage brush and native grasses. There is evidence of sheep and small animal life in the area.

Surface at this location belongs to Navajo Indian Allotted.

There are no occupied dwellings in the area.

There were no archaeological or cultural sites visible on the location. The archaeologist's report is forthcoming.

12. Claude C. Kennedy
Consultant
4949 San Pedro, N.E.
Suite 47
Albuquerque, New Mexico 87109
Phone: 883-9624

13. 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 the 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 George E. Coleman, and his contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Original signed by
CLAUDE C. KENNEDY
Claude C. Kennedy

Date: 6-18-1979

HORACE F. McKAY, Jr.

and WILLIAM J. MAYHEW

FORMATION INFORMATION AND DRILLING PRACTICE

WELL: #1 Navajo

LOCATION:

695'FNL, 2225'FEL
Sec. 7, T19N, R6W
McKinley County, N.M.

LEASE NUMBER:

NOO-C-14-20-2687

1. Geologic name of surface formation.
Kirtland

2. Estimated tops of important geologic markers.

Cliff House	1100
Menefee	1140
Point Lookout	2100

3. Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected.
2100' - oil & gas

4. Proposed casing program.
Surface: 7", 24#, used casing to be set at 96'. Cement will be with 100 sx. Class "B" + 2% gel + 0.5% CFR-2, adequate to circulate.

Production: 4½", 10.5#, K-55, new casing to be set at 2250'. Cement will be 250 sx. Class "B" + 2% gel + 0.5% CFR-2, or adequate to circulate.

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. Drilling fluids.

Depth	Type	Viscosity	Weight	Fluid Loss (cc)
0-100	Gel-lime	35-45	8.6-9.0	N/C
100-2250	Low-solids	29-33	8.4-8.8	15

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

8. Logging - Coring - Testing.
Logging: Induction Electric Log, Formation Compensated Density, Gamma Ray Caliper.

Coring: None

Drill Stem Testing: None

9. Abnormal temperatures, pressure, or hazardous conditions.
None expected.

10. Starting Date.
Anticipated starting date is 7-15-1979. 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 5/8", 5000 Lb.—16", 3000 Lb.

PARTS AND DIMENSIONAL ILLUSTRATIONS

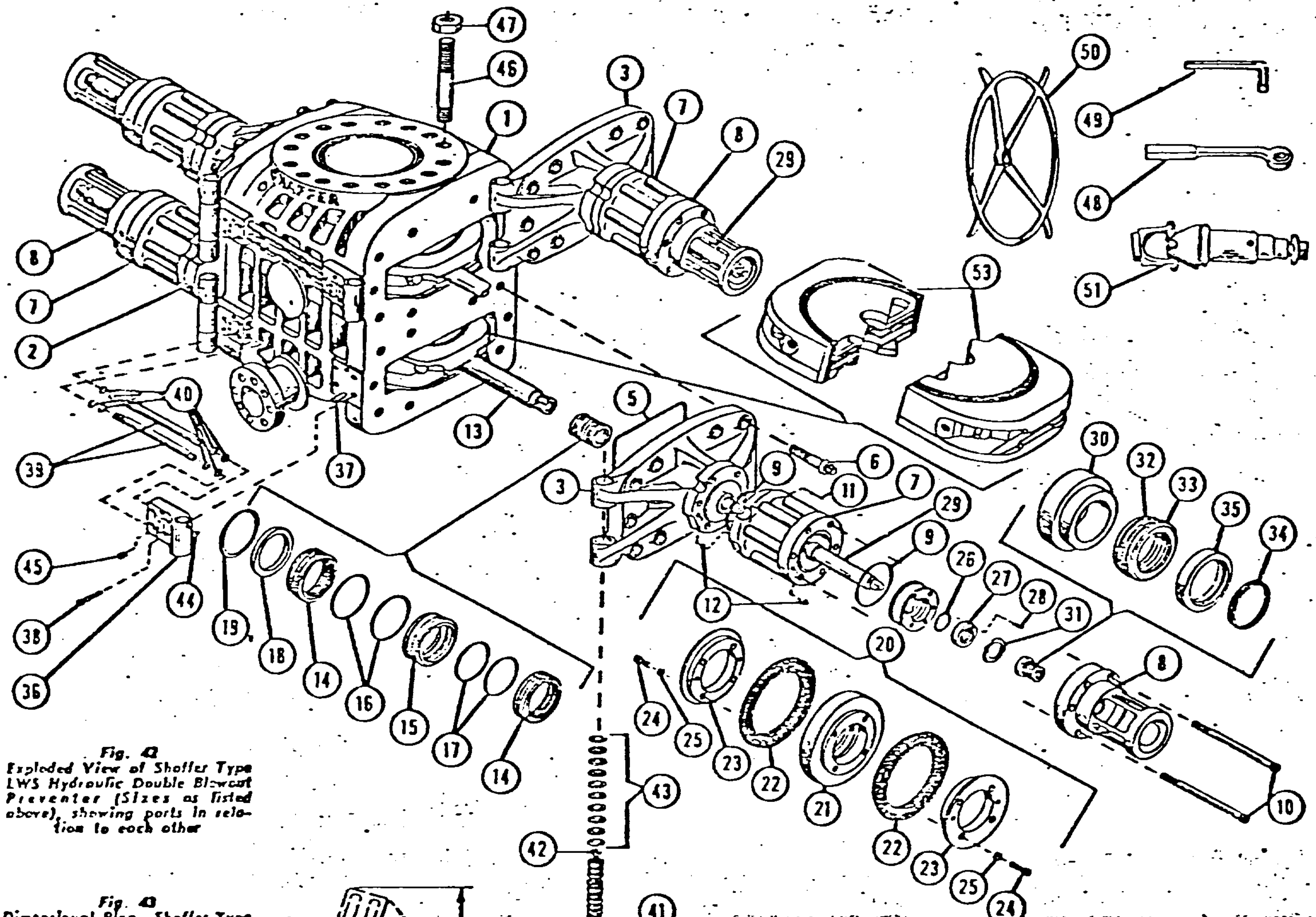


Fig. 42 Exploded View of Shaffer Type LWS Hydraulic Double Blowout Preventer (Sizes as listed above), showing ports in relation to each other

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

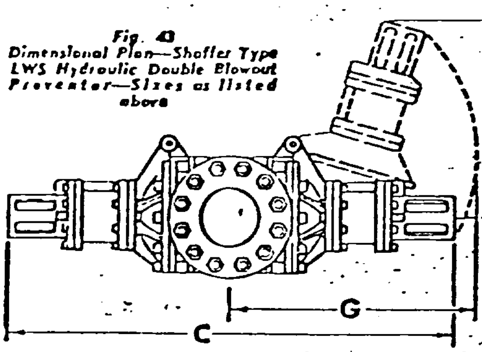
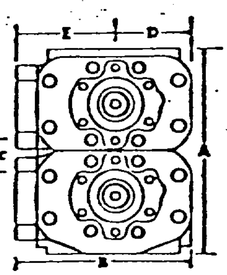


Fig. 44 Dimensional End Elevation—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above



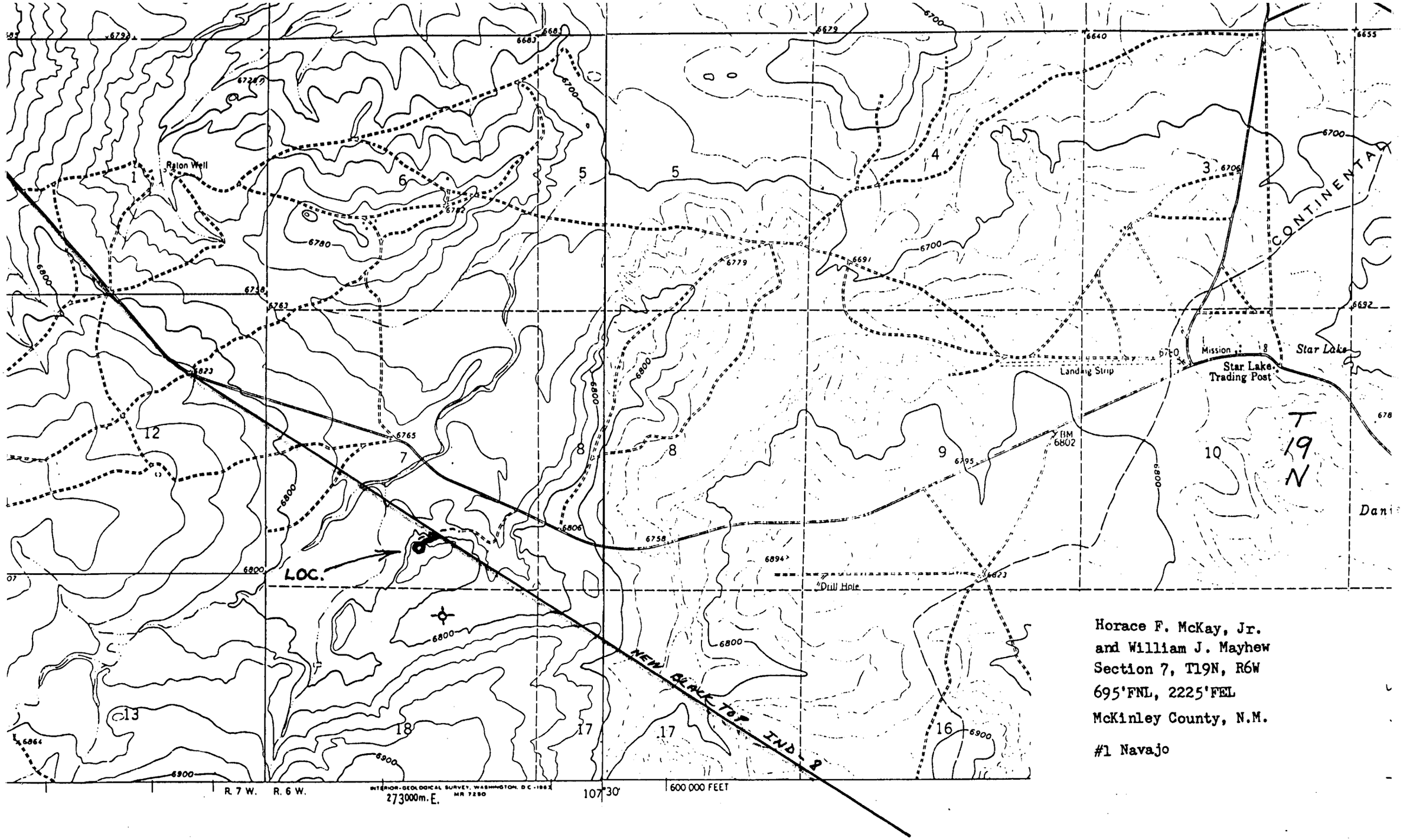
STANDARD ACCESSORIES

- (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. Service Press. Rating psi	Test Press. psi	Vertical Bore	Max. Ram Size	Approx. Weight Lbs. Studded Flange Single	Approx. Weight Lbs. Studded Flange Double	A Height Single Studded Flange	A Height Single Bolted Flange	A Height Double Studded Flange	A Height Double Bolted Flange	B Width	C Length	D Center To Front	E Center To Rear	F Door Open To Change Rams	G Door Open To Change Rams	Closing Ratio	Opening Ratio	U.S. Gals. Fluid To Close Rams	U.S. Gals. Fluid To Open Rams
8"	3,000	6,000	8"	7"	----	3,500	----	----	29½"	41½"	25¾"	75½"	11½"	14½"	23"	48"	5.8 to 1	1.89 to 1	2.75	2.3
8"	5,000	10,000	8"	7"	----	3,500	----	----	29½"	45½"	25¾"	75½"	11½"	14½"	23"	48"	5.8 to 1	1.87 to 1	2.75	2.3
10"	5,000	10,000	11"	8⅝"	5,000	7,000	34½"	34½"	23"	50½"	28½"	85½"	12½"	18"	22"	48"	5.5 to 1	1.5 to 1	3.25	2.7
12"	3,000	6,000	12⅝"	10¾"	----	6,300	----	----	24½"	47½"	31½"	92¾"	13½"	18½"	27"	53"	5.58 to 1	1.87 to 1	3.55	2.9
13⅝"	5,000	10,000	13⅝"	10¾"	6,800	9,200	35½"	35½"	28"	49½"	23½"	97¼"	14½"	18½"	41"	54"	5.58 to 1	1.5 to 1	3.55	2.9
16"	3,000	6,000	15½"	13⅜"	----	8,500	----	----	28"	51"	55½"	105½"	16½"	20½"	22"	60"	5.58 to 1	1.57 to 1	3.8	3.2



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and William J. Mayhew
Section 7, T19N, R6W
695'FNL, 2225'FEL
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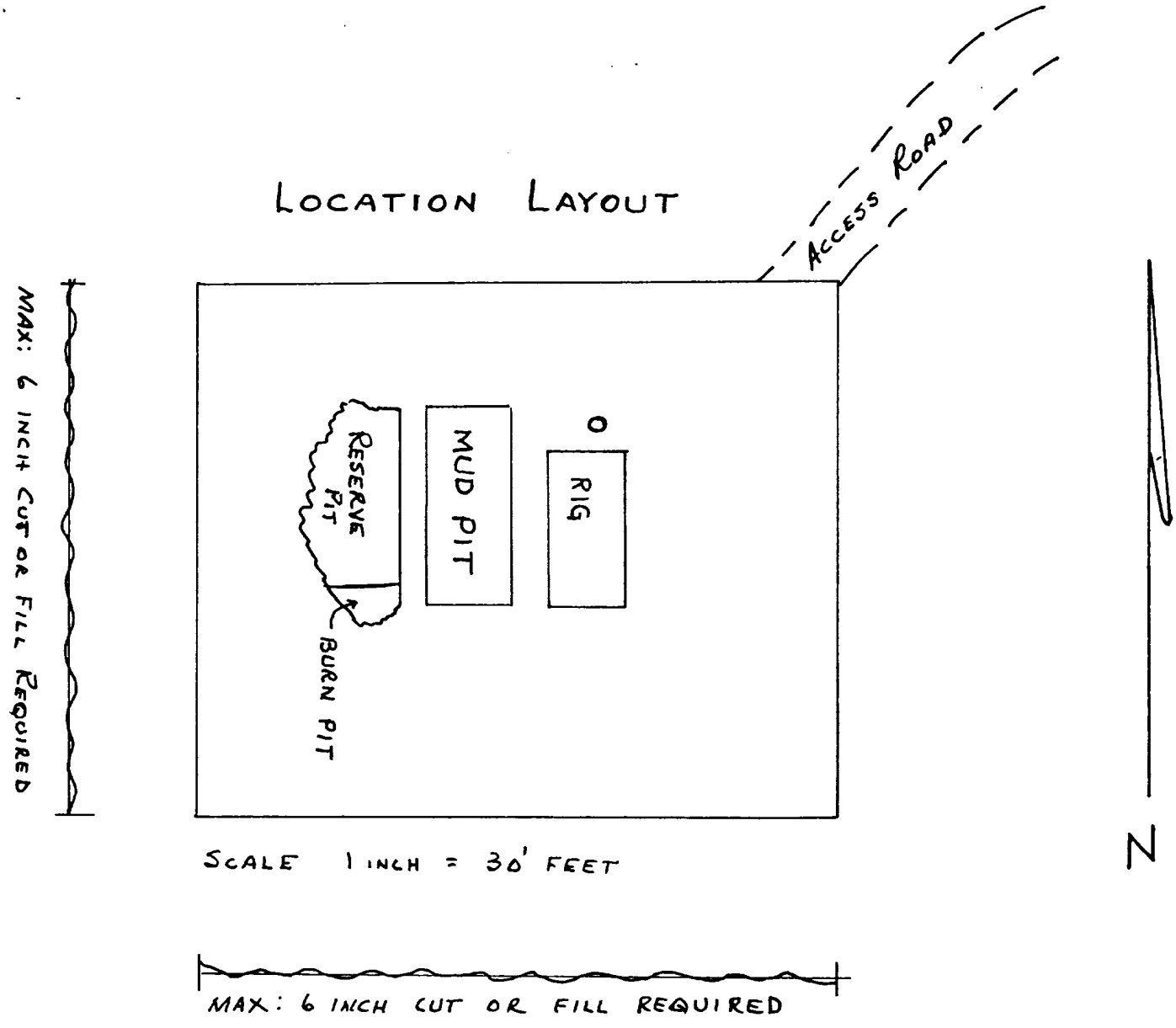
#1 Navajo



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