

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

Ken Blackford

3. ADDRESS OF OPERATOR

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

234° 50' 1221° 101

At proposed prod. zone

7200

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

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

1600

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2700'

19. PROPOSED DEPTH

2500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

20. ROTARY OR CABLE TOOLS

Rotary

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

6681

22. APPROX. DATE WORK WILL START*

July 15, 1978

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8.500	11.00	100'	50 BX
6-3/4"	5.000	12.00	2400'	100 BX

Drill approximately 100' of 11" hole, set 100' of 8.500" 22.0 lb surface casing, circulate cement.

Drill 6-3/4" hole to 2500', set 5.000" 10.5 lb casing to total depth, cement with 100 BX class II, to cover 100' above.

Run 2.500" tubing to 2500'.

Effectively cemented approximately 30' zone of sandstone, gas water frac, also on production.

Gas is the desired

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

B. F. Litch

TITLE

Agent - Geologist

DATE June 8, 1978

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

JUN 12 1978

U. S. GEOLOGICAL SURVEY
DENVER, COLO.

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws 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 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

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 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**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.

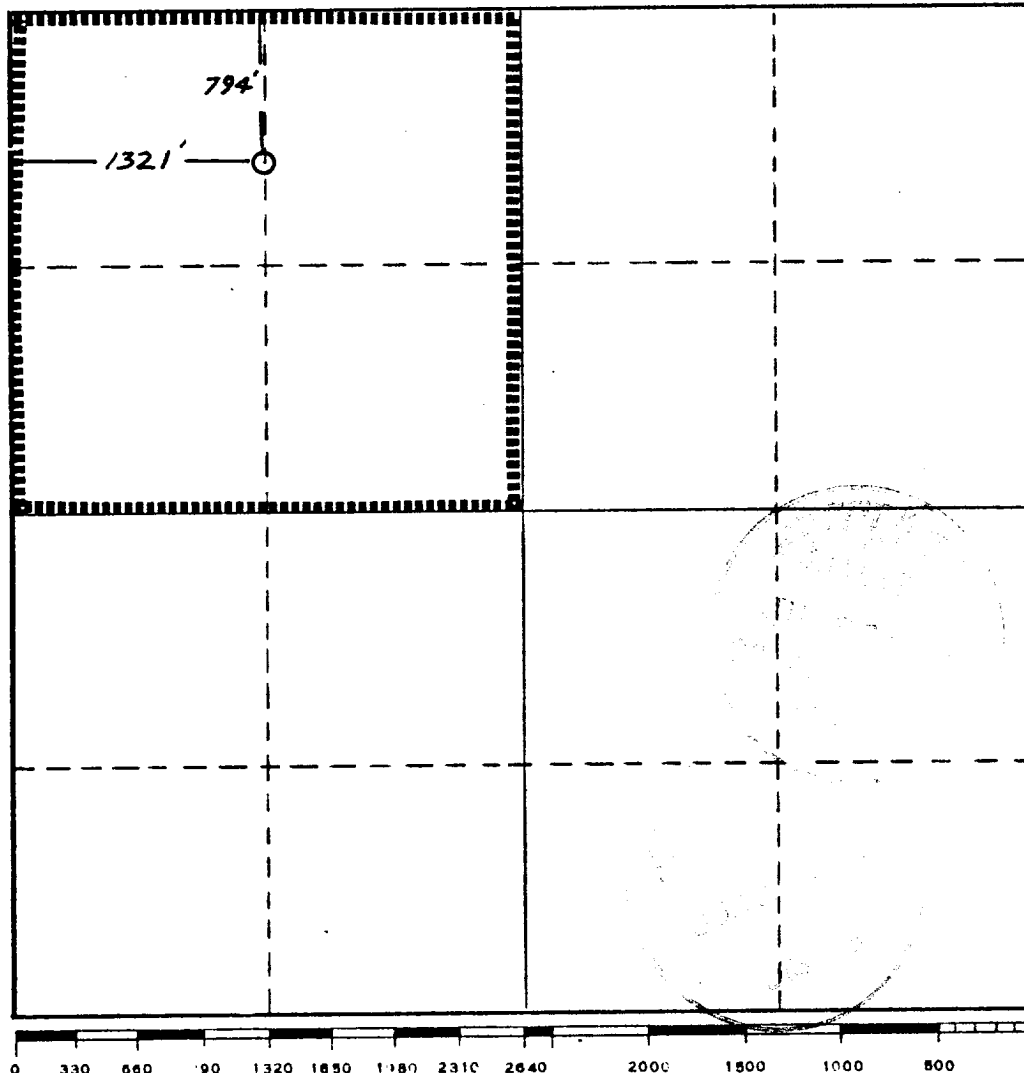
Operator Ken Blackford		Lease Jicarilla Contract No. 37-B		Well No. 6
Unit Letter C	Section 25	Township 24 N	Range 5 W	County Rio Arriba
Actual Footage Location of Well: 794 feet from the North line and 1321 feet from the West line				
Ground Level Elev. 6681	Producing Formation <i>Pictured Cliffs</i>	Pool <i>Ballard</i>	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.



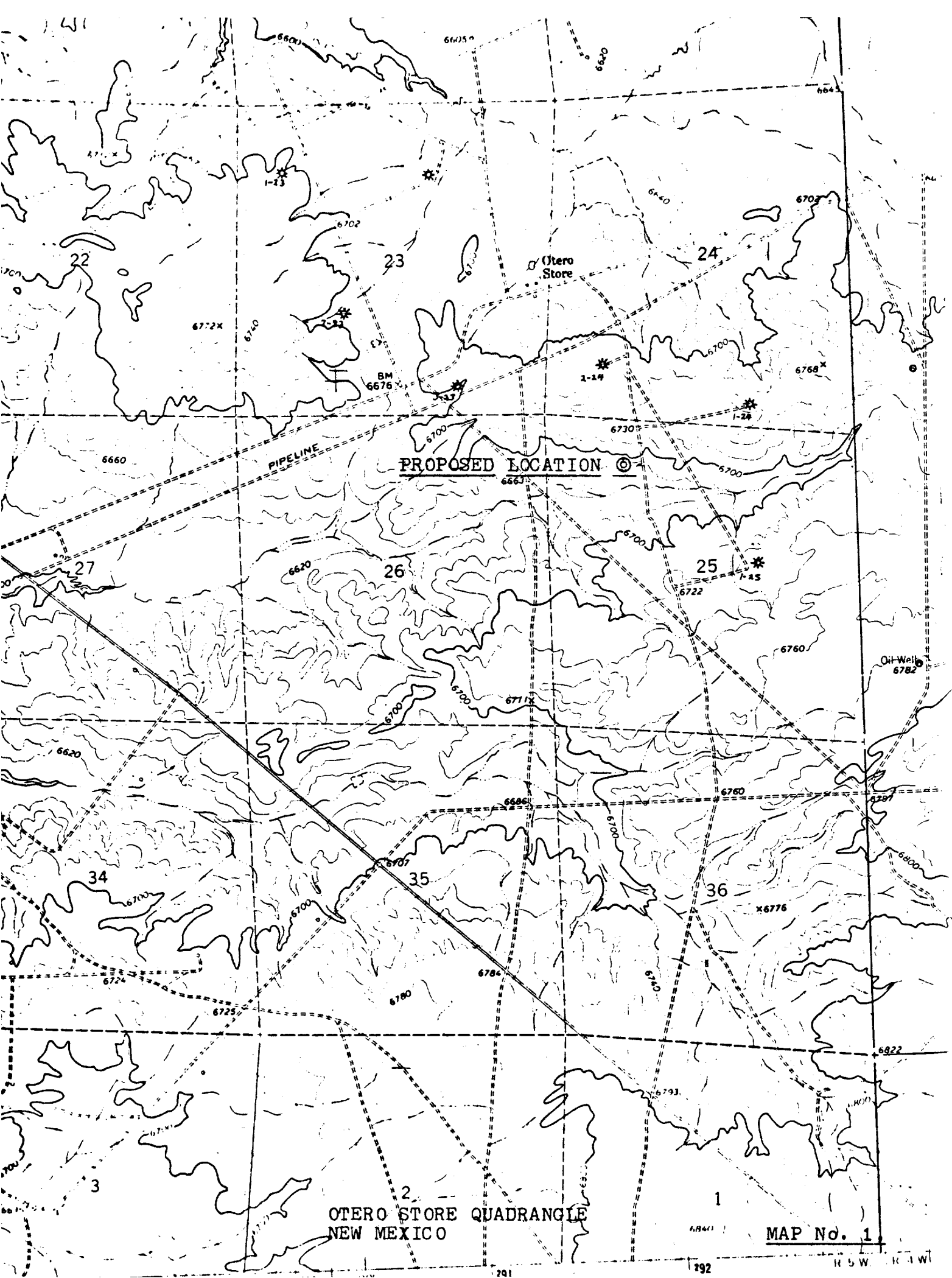
CERTIFICATION

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

Name <i>W. F. Luttrell</i>
Position <i>Agent</i>
Company <i>Ken Blackford</i>
Date <i>6/15/78</i>

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 May 19, 1978
Registered Professional Engineer and/or Land Surveyor <i>Frederick H. Reed</i> Frederick H. Reed
Certificate No. 3795



OTERO STORE QUADRANGLE
NEW MEXICO

MAP No. 1

1:24,000

192 191 H S W R A W I

Multi-Point Surface Use Plan
Ken Blackford, Jicarilla 37-B-6
ne/nw Sec. 25, T 24 N - R 5 W

1. Existing Road- Please refer to map No. 1, which shows the the existing roads.
2. Planned access roads- Please refer to map No. 1, approximately 300' of road will have to be constructed in a westerly direction from the existing well traveled road. The grade of the access road will be consistent with that of the local terrain. The road surface will not exceed thirty feet in width. Upon completion of the project, the access road will be properly drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts, or any other measures deemed necessary by trained company personnel to secure proper drainage.
3. Location of existing wells- Please refer to map No. 1.
4. Location of tank batteries, production facilities, and production gathering and service lines- Please refer to map No. 1. No tank batteries are utilized in this area. Production facilities consist of a meter run which is constructed on the well site. Gathering lines are all buried and their true positions are unknown to myself although I am sure that this is a matter of record, filed by the purchaser, with the proper regulatory agencies.
5. Location and type of water supply- Water for the proposed project will be obtained from the Largo Wash.
6. Source of construction materials- No additional materials will be required to build either the access road or the proposed location.
7. Methods of handling waste materials- All garbage and trash materials will be put into a burn pit, shown on the attached location plat No. 1. When cleanup operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet. A latrine, the location of which is shown on plat No. 1, will be provided for human wastes. If large amounts of liquids are left in the reserve pit after com-

Multipoint Surface Use Plan

pletion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean up will not take place until such time as the reserve pit can be properly covered over to prevent run off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.

8. Ancillary facilities- No camps or airstrips will be associated with this project.

9. Wellsite layout- Please refer to the attached plat ~~No. 1~~ ^{Ex. No. 2,}

10. Plans for restoration of the surface- After completion of the project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. We await specific instructions as to the reseeding. The reseeding operation will be performed during the time period set forth by the proper regulatory body.

11. Other information- The immediate area is relatively flat and sandy. A few head of cattle and sheep occasionally graze the proposed project site.

12. Operators representative- B. F. Latch
93 Riverview Drive
Durango, Colo. 81301
303-247-5050

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 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 Ken Blackford, (operator) and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

B. F. Latch
B. F. Latch
Agent for Ken Blackford
(operator)

B. F. LATCH

Operations Plan

Ken Blackford, Jicarilla 37-B-6

1. Location:

794' fnl & 1321' fwl
Sec. 25, T 24 N - R 5 W NMPM
Rio Arriba County, New Mexico

2. Geology:

A. Formation tops:	T Wasatch	Spud
	T Ojo Alamo	1900
	K Kirtland	2050
	K Fruitland	2205
	K Pictured Cliffs	2370
	K Lewis	2440
	TD	2500

B. Logging program:

IES, surface casing to TD.
GR-CNL-FDC- Caliper, 2500' to 1000'
GR correlation log in casing for perforations

C. Coring program:

None

3. Drilling:

A. Rotary tools, surface to TD

B. Surface hole with fresh water & spud mud

C. Fresh water gel mud from surface to TD

4. Materials:

A. Casing program:

Hole size	Depth	Casing size	Wt. & Grade
11"	100'	8-5/8"	32.0 K-55
6-3/4"	2500'	4-1/2"	10.5 K-55

B. Float equipment:

Halliburton Texas pattern guide shoe for surface.

Halliburton 4-1/2" guide shoe w insert float valve
one joint above shoe.

Use four Halliburton 4-1/2" centralizers, every
other joint above shoe.

C. Tubing:

2450' of 2-3/8" 4.7 lb 8rd EUE tubing w common
pump seating nipple above perforated nipple & bull plugged
full joint for mud anchor.

B. F. LATCH

Operations Plan

Ken Blackford, Jicarilla 37-B-6

D. Well head equipment:

2000 psi test tree.

5. Cementing:

- A. 8-5/8" surface casing, use 50 sx class B w 2% Ca Cl.
Yields 59 cu. ft. = 125% excess to circulate. WOC 12
hrs. test casing to 500 psi for 30 minutes.
- B. 4-1/2" production casing. Precede cement w 20 bbls.
fresh water. Cement w 100 sx class B, yields 118 cubic
feet = 40% excess to cover Ojo Alamo.

6. Completion:

- A. Selectively perforate approximately 30' of ss and treat
w sand water frac. Use approximately 40,000 gals. water
and 60,000 lbs. 20/40 sand.