

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

LC 045818(a)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hastie

9. WELL NO.

11

10. FIELD AND POOL, OR WILDCAT

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

Sec. 18-T17S-R28E

12. COUNTY OR PARISH

Bddy

N.M.

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

H & S Oil Company

3. ADDRESS OF OPERATOR

216 American Home Bldg. - Artesia, New Mexico 87010

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

660' TSL & 660' FSL of Section 18-T17S-R28E

RECEIVED

JUL 21 1978

14. PERMIT NO.

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

OR 3580.7

O. C. C.

ARTESIA, OFFICE

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other) Production String

(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.)*

1/5/78 Ran 322' of 5 5/8" New Casing cemented with 150 sacks of Class C. cement and 3 sacks calcium chloride. ~~Pressure tested to 500 lbs. & shut in.~~
1/10/78 Ran 1895' of New 5 1/2" Casing cemented with 225 sacks of Class C cement, would not circulate.

1/12/78 Perforated 1170-72 for cement squeeze.

1/22/78 Cemented 5 1/2" and squeeze with 150 sacks of cement. (100 sacks light and 50 ~~xxx~~ sacks Class C.) Pressured to 500 lbs. & shut in.

2/13/78 Fracture Treatment (See attached report)

RECEIVED

JUL 14 1978

U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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

SIGNED

G. L. Heinsch

TITLE

Partner

DATE

7/14/78

(This space for Federal or State office use)

APPROVED BY (Orig. Sgd.) ALBERT R. STALL TITLE

ACTING DISTRICT ENGINEER

DATE

JUL 19 1978.

WELL TREATMENT REPORT

DOWELL

D.W.L. 494-7A PRINTED IN U.S.A.

DOWELL DIVISION OF DOW CHEMICAL U.S.A.

DATE

2-13-78

WELL NAME AND NUMBER

HASTIE #16

LOCATION

SEC 18-17-28

CUSTOMER REPRESENTATIVE

HERBERT SPENCER

TREATMENT NUMBER

05-13-8135

POOL

FORMATION

RED LAKE FIELD

GRAYBURG

TUBING

☐

CASING

☐

ANNULUS

☐

ALLOWABLE PRESSURE

TBG: 4000 CSG:

COUNTY

STATE

EDDY

NEW MEXICO

OIL

☒

TYPE OF WELL

☐

GAS

☐

WATER

☐

INJ

☐

TYPE OF SERVICE

☐ Acidizing☒ Fracturing☐ Sand Control☐ Other

SERVICE NAME

FRACTURING

AGE OF WELL

NEW WELL

☐

REWORK

☐

TOTAL DEPTH

—

STAT C BHT

—

CASING SIZE

5 1/2" 14"

CASING DEPTH

1887

TUBING SIZE

2 3/8" 4 1/2"

TUBING DEPTH

1684

LINER SIZE

—

LINER

TOP-BOTTOM

PACKER TYPE

DWL

PACKER DEPTH

1684

OPEN HOLE

—

CASING VOL

.39

TUBING VOL

6.5

ANNULAR VOL

—

PERFORATED INTERVALS

TOP	TO	BOTTOM	NO. OF HOLES	TOP	TO	BOTTOM	NO. OF HOLES
1670	TO	1684	9		TO		
1760	TO	1764	9		TO		
1786	TO	1790	9		TO		
1798	TO	1802	9		TO		

DIAMETER OF PERFORATIONS =

FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS

ARRIVED ON LOCATION: 0800

LEFT LOCATION: 1600

TIME	INJECTION RECORD						PRESSURE		NOTATIONS
	LIQ. RATE BPM	TYPE OF FLUID	STAGE VOL BBLs	CUM. VOL BBLs	PROP. TYPE	PROP. # GAL	CSG.	TBG.	
1015		Hold Safety Meeting / Detail Job							Pre-Job Pressure Test
1020		WATER							CIRCULATE HOLE
1021	2.7	WATER							TO ACID
1023	2.7	ACID	1		PACKER		1684'		STOP PUMP FLUSH 6.9 BBL H ₂ O
1044		WATER			BRIDGE PLUG		1700'		START BREAKDOWN
1046		WATER	1						TO 5 BBL ACID
1053	8	ACID	5				3000		TO FLUSH
1040		WATER	12.8				1200		ISIP - STOP PUMP
1045									5 min shut-in
1125	2.8	WATER							BREAK CIRCULATION
1126	2.8	WATER							TO 1 ACID
1127	2.8	ACID	1						TO FLUSH
1130	2.8	WATER	7.0		PACKER		1749'		STOP PUMP
1153		WATER	*		BRIDGE PLUG		1760'		START BREAKDOWN
1155	2	WATER	4						TO 5 BBL ACID
1156	8	ACID	8						TO FLUSH
1157	8	WATER	13						STOP PUMP
1159							900		ISIP

FRAC. GRADIENT		AVG. INJECTION RATES		TOTAL FLUID		TOTAL PROP		OTHER MATERIALS INJECTED		
LIQ.	W/DROP	LIQ.	W/DROP	BBLs	W/DROP	BBLs	W/DROP	TYPE	PURPOSE	AMOUNT
								ACID	BREAKDOWN	500 GAL
TREATING PRESSURE SUMMARY		TREATING PRESSURE SUMMARY		TREATING PRESSURE SUMMARY		TREATING PRESSURE SUMMARY				
MAX	FINAL	AVG	W/DROP	15 MIN	W/DROP	15 MIN	W/DROP			
PREVIOUS TREATMENTS AND DATES		PREVIOUS TREATMENTS AND DATES		PREVIOUS TREATMENTS AND DATES		PREVIOUS TREATMENTS AND DATES				
PRODUCTION PRIOR TO THIS TR.		PRODUCTION PRIOR TO THIS TR.		PRODUCTION PRIOR TO THIS TR.		PRODUCTION PRIOR TO THIS TR.		DOWELL TREATMENT SUPERVISOR		
☐ Test		☐ Stabilized		DOWELL LOCATION		DOWELL TREATMENT SUPERVISOR				
				ARTESIA, NEW MEXICO		Charles Carroll				

2-13-78

WELL NAME AND NUMBER

HASTIE #16

L

JN

DEC 13-17-28

CUSTOMER REPRESENTATIVE

HERBERT SPENCER 05-13-8135

TREATMENT NUMBER

POOL

RED LAKE FIELD

FORMATION

GRAYBURG

JOBS DONE DOWN

TUBING

CASING

ANNULUS

ALLOWABLE PRESSURE

TGB: 4000

CSG

COUNTY

EDDY

STATE

NEW MEXICO

TYPE OF WELL

OIL

GAS

WATER

INJ

TYPE OF SERVICE

☐ Sand Control☐ Other

SERVICE NAME

FRACTURING

AGE OF WELL

NEW WELL

REWORK

TOTAL DEPTH

STATIC BHT

CUST. NAME

H & S OIL COMPANY

ADDRESS

216 AMERICAN HOME SECURITY BLDG

CITY, STATE

ARTESIA, NEW MEXICO 88210

ZIP CODE

CASING SIZE

5 1/2" 14#

CASING DEPTH

1887

TUBING SIZE

2 3/8" 4.7

TUBING DEPTH

1749

LINER SIZE

—

LINER TOP-BOTTOM

—

PACKER TYPE

DWL

PACKER DEPTH

1749

OPEN HOLE

—

CASING VOL.

1.97

TUBING VOL.

6.76

ANNULAR VOL.

—

PERFORATED INTERVALS

TOP	TO	BOTTOM	FEET	TOP	TO	BOTTOM	NO. OF HOLES
1670	TO	1674	9		TO		
1760	TO	1764	9		TO		
1786	TO	1790	9		TO		
1798	TO	1802	9		TO		

DIAMETER OF PERFORATIONS =

REMARKS: Page 2: SPOT AND ACIDIZE PERES THEN PREPARE FOR FRACTURE TREATMENT CONSISTING OF 2 STAGES:

FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS

ARRIVED ON LOCATION: 0800

LEFT LOCATION: 1600

TIME	INJECTION RECORD						PRESSURE		NOTATIONS
	LIQUID RATE BPM	TYPE OF FLUID	STAGE VOL. BBLs	CUM. VOL. BBLs	FRAC. TYPE	PROP. CONC. %	CSG	TGB	
									Pre-Job Pressure Test
1327	2.8	WATER							CIRCULATE HOLE
1328	2.8	WATER	42		PACKER		1780		TO 1 BBL ACID
1329	2.8	WATER	1		EDGE PLUG		1830		TO FLUSH
1331	2.8	WATER	6						STOP PUMP
1332		WATER							START Break-down
1335	3.8	WATER							TO FLUSH
FRACTURE TREATMENT									
1415									Pressure Test Meeting Jones to 5000 psi
1426	8						—	650	START ACID
1429	14	ACID	6	6			—	2000	TO PAD
1442	20	PAD	24	30			—	3500	TO 2" 100 mesh
1443	20	100 mesh	24	54	100 MESH 2"		—	3700	TO 4" 100 mesh SPACE
1444	19	SPACER	24	78			—	3600	TO 4" 100 mesh
1445	19.5	100 mesh	24	102	100 mesh 4"		—	3800	TO SPACER
1446	19.5	SPACER	24	126			—	3700	TO 1" 20/40 SAND
1456	21.5	20/40 SAND	238	364	20/40 1"		—	2900	FLUSH 4 20 NC. BALLS
1457	6.5	FLUSH	12	376			—	2900	TO ACID

FRAC. GRADIENT	AVG. INJECTION RATES		TOTAL FLUID BBLs	TOTAL PROP. LBS	OTHER MATERIALS INJECTED		
	LIQ.	W/DROP			TYPE	PURPOSE	AMOUNT
	16.9	17.9	747	30,000	ACID	BREAK-DOWN	500 GAL
					20/40 SAND	PERFORANT	18000 #
					100 MESH	FLA	12000 #
					CEL 420	FRAC FLUID	3164 GAL
TREATING PRESSURE SUMMARY							
MAX. 3900	FINAL 3500	AVG. 3700	IMMED. SIP. 1000	15 MIN. SIP. 900			
PREVIOUS TREATMENTS AND DATES							

PRODUCTION PRIOR TO THIS TR.

☐ Test☐ Stabilized

DOWELL LOCATION

ARTESIA, NEW MEXICO

DOWELL TREATMENT SUPERVISOR

Charlie Clacine

2-13-78

WELL NAME AND NUMBER

#16 HASTIE

LOCATION

SEC 18-17s-28e

CUSTOMER REPRESENTATIVE

TREATMENT NUMBER

05-13-8135

POOL

RED LAKE

FORMATION

GRAYBURG

TUBING

OB DONE DOWN

CASING

ANNULUS

ALLOWABLE PRESSURE

COUNTY

EDDY

STATE

NEW MEXICO

OIL

TYPE OF WELL

GAS

WATER

INJ

TYPE OF SERVICE

☐ Acidizing
☒ Fracturing

☐ Sand Control
☐ Other

SERVICE NAME

AGE OF WELL

NEW WELL

REWORK

TOTAL DEPTH

STATIC BHT

CUST. NAME

H & S OIL COMPANY

ADDRESS

216 AMERICAN HOME SECURITY BLDG

CITY, STATE
ZIP CODE

ARTESIA, NEW MEXICO

REMARKS:

Page 3 OF 5

88210

CASING SIZE

CASING DEPTH

TUBING SIZE

TUBING DEPTH

LINER SIZE

LINER TOP-BOTTOM

PACKER TYPE

PACKER DEPTH

OPEN HOLE

CASING VOL.

TUBING VOL.

ANNULAR VOL.

PERFORATED INTERVALS

TOP	TO	BOTTOM	NO. OF HOLES	TOP	TO	BOTTOM	NO. OF HOLES
	TO				TO		
	TO				TO		
	TO				TO		
	TO				TO		

FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS

ARRIVED ON LOCATION:

LEFT LOCATION:

DIAMETER OF PERFORATIONS =

TIME

INJECTION RECORD

PRESSURE

NOTATIONS

TIME	DATE	TYPE OF FLUID	STAGE VOL. BBLs	CUM. VOL. BBLs	DATE	TIME	CSG.	TBG.	NOTATIONS
									Pre-Job Pressure Test
1458	22	ACID	6	372			—	1700	TO PAD
1459	20	PAD	24	406			—	2650	2" 100 MESH
1502	5.5	100 mesh	24	430	100 MESH 2"		—	1300	TO SPACER
1504	21	SPACER	24	454			—	2700	TO 100 mesh
1504	21	100 mesh	24	478	100 mesh 4"		—	2925	TO SPACER
1506	22	SPACER	24	502			—	2900	TO 1" 20/40 SAND
1511	9	20/40	101	603	20/40 1"		—	2100	CUT 20/40 P/U ACID
1512	7.5	ACID	9	612			—	1700	TO 20/40 (1/2")
1513	19	20/40	15	627	20/40 1/2"		—	1700	TO 20/40 (1")
1517	20	20/40	80	707	20/40 1"		—	3550	TO FLUSH
1519	20	FLUSH	40	747				3500	STOP PUMP
								1000	FSIP

FRAC GRADIENT

AVG INJECTION RATES

TOTAL FLUID

TOTAL PROP

OTHER MATERIALS INJECTED

 MAX. 3800
 PREVIOUS TREATMENTS AND DATES

 3500
 FINAL

 3700
 AVG

 1000
 IMMEDIATE

 900
 15 MIN

TYPE	PURPOSE	AMOUNT
ACID	BREAK-DOWN	882 GAL
20/40 SAND	PROPPANT	15000 #
100 MESH	FLA	12000 #
GEL H ₂ O	FRAC FLUID	32492 GAL

PRODUCTION PRIOR TO THIS TR

☐ Test
☐ Stabilized

DOWELL LOCATION

ARTESIA, NEW MEXICO

DOWELL TREATMENT SUPERVISOR

Charlie Collins

DWL 494 PRINTED IN U.S.A.

DOWELL DIVISION OF DOW CHEMICAL U.S.A.

DATE

2-13-78

WELL NAME AND NUMBER

#16 HASTIE

POOL
RED LAKECOUNTY
EDDYTYPE OF SERVICE
☒ Acidizing
☒ Fracturing
☐ Sand Control
☐ Other

FORMATION

SEC 18-17-78

GRAYBURG

STATE
NEW MEXICO

SERVICE NAME

CUSTOMER REPRESENTATIVE

HERBERT SPENCER

TREATMENT NUMBER

05-13-8135

TUBING
☒ JOB DONE DOWN
CASING
☐ ANNULUS
☐

ALLOWABLE PRESSURE

T.B.G. 4000

CSG

OIL
☒ TYPE OF WELLGAS
☐WATER
☐INJ
☐NEW WELL
☐REWORK
☐

TOTAL DEPTH

STATIC BHT.

CASING SIZE

5 1/2"

CASING DEPTH

1887

TUBING SIZE

2 3/8 4.7"

TUBING DEPTH

1652

LINER SIZE

LINER
TOP-BOTTOM

PACKER TYPE

DWL

PACKER DEPTH

1652

OPEN HOLE

CASING VOL.

1.9

TUBING VOL.

6.39

ANNULAR VOL.

PERFORATED INTERVALS

TOP	TO	BOTTOM	NO. OF HOLES	TOP	TO	BOTTOM	NO. OF HOLES
	TO				TO		
	TO				TO		
	TO				TO		
	TO				TO		
	TO				TO		

FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS

ARRIVED ON LOCATION: 0800

LEFT LOCATION: 1230

DIAMETER OF PERFORATIONS =

TIME	INJECTION RATES GPM	TYPE OF FLUID	STAGE VOL. BBLs	STAGE VOL. GALS	PROP % SLURRY	PROP % SOLIDS	CSG	T.B.G.	NOTATIONS
									Pre-Job Pressure Test
									FRACTURE TREATMENT
1151									Press Test Lines to 6400 psi after Safety Meeting
1154	3							1500	TO ACID
1156	18	ACID	6	6				1500	TO PAD
1158	16	PAD	24	30				3300	TO 2" 100 mesh
1159	17	100 mesh	24	54	100 mesh	2"		3400	TO SPACER
1200	19	SPACER	24	78				3500	TO 4" 100 mesh
1201	17	100 mesh	24	102	100 mesh	4"		3700	TO SPACER
1202	16.5	SPACER	24	126				3650	TO 1" 20/40
1203	17	20/40	17	143	20/40	1"		3700	TO 1/4" 20/40
1204	16	20/40	17	160	20/40	1/4"		3700	TO 1/2" 20/40
1205	18.5	20/40	16	176	20/40	1/2"		3400	TO 1" 20/40
1208	16	20/40	555	231.5	20/40	1"		4100	CUT SAND
1209	19	PAD	16	247				3200	TO 20/40 (1/2")
1210	19	20/40	19	266	20/40	1/2"		3100	TO 20/40 (3/4")
1211	19	20/40	19	285	20/40	3/4"		3450	TO 20/40 (1")
1219	10	20/40	152	437	20/40	1"		3300	TO FLUSH
1223	10	WATER	40	477				3850	STOP PUMP
1223								1200	ISIP

FRAC GRADIENT	AVG. INJECTION RATES		TOTAL FLUID	TOTAL PROP	OTHER MATERIALS INJECTED		
	LIQ 18.8	W. PROP 19.5	477 BBLs	23 BBLs	TYPE	PURPOSE	AMOUNT
TREATING PRESSURE SUMMARY					ACID	BREAK-DOWN	250 GALL
4100	3850	AVG 3600	1200	15 MIN SIP 1050	20/40 SAND	PREPANT	10000 #
PREVIOUS TREATMENTS AND DATES							

MAX
PREVIOUS TREATMENTS AND DATES

4100

FINAL 3850

AVG 3600

W. PROP 1200

15 MIN 1050

TREATING PRESSURE SUMMARY

PRODUCTION PRIOR TO THIS TR

Test

Stabilized

DOWELL LOCATION

ARRESTIA, NEW MEXICO

DOWELL TREATMENT SUPERVISOR

Challie (Relic)

