UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS:

12-1-83 Operator name change = 931006 Phillips to MEPNA eff. 1-1-93:
* RE-ENTRY ~~Directional~~ Horizontal DRC; 950803 OPER. Name FROM MEPNA
960311 Commenced Injection eff. 11-1-95

(Have File) Well Log & 3 Elector Logs

DATE FILED	8-13-58 * 1-9-95		
LAND: FEE & PATENTED	STATE LEASE NO.	PUBLIC LEASE NO.	INDIAN Nav-14-20-603-~~4495~~ 355
DRILLING APPROVED:	8-13-58 * 1-10-95		
SPUDDED IN:	8-26-58		
COMPLETED:	9-30-58 * 5-9-95 POW		
INITIAL PRODUCTION:	286 BOPD 7 ~~460 MCF/D~~ * 154 BOPD; 70 MCF, 34 BWPD		
GRAVITY A. P. I.	~~[illegible]~~ ~~[illegible]~~ ~~(DSCR)~~ 42		
GOR:	584:1 * 454		
PRODUCING ZONES:	5735-5904' (DSCR) * 5910-6970' (DSCR)		
TOTAL DEPTH:	5952' * TVD 5952'; TMD 6970'		
WELL ELEVATION:	4976 DF * 4966.5 GR		
DATE ABANDONED:			
FIELD OR DISTRICT:	Aneth		
COUNTY:	San Juan		
WELL NO.	NAVAJO A - 10 (Rathertford 21-14)		API 43-037-15753
LOCATION:	660 FT. FROM ~~XX~~ (S) LINE,	460 FT. FROM (X) (W) LINE.	SW SW QUARTER - QUARTER SEC. 21
* BHL:	1601' FSL	237' FEL	13 * Sec. 20

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR MEPNA
				41 S	24 E	21	MOBIL EXPLOR & PROD

GEOLOGIC TOPS:

QUATERNARY	Star Point	Sinbad	Brazer
Recent	Wahweap	PERMIAN	Pilot shale
Alluvium	Masuk	Kaibab	Madison
Lake beds	Colorado	Coconino	Leadville
Pleistocene	Mancos	Cutler 2680	Redwall
Lake beds	Upper	Hoskinnini	DEVONIAN
TERTIARY	Middle	DeChelly 2815	Upper
Pliocene	Lower	White Rim	Middle
Humboldt	Emery	Organ Rock 3018	Lower
Salt Lake	Blue Gate	Cedar Mesa	Ouray
Miocene	Ferron	Halgaite tongue	Elbert
Bishop conglomerate	Frontier	Phosphoris	Guilmette
Oligocene	Dakota	Park City	Simonson dolomite
Norwood	Burro Canyon	Rico (Goodridge)	Sevy dolomite
Eocene	Cedar Mountain	Supai	North Point
Duchesne River	Buckhorn	Bird Springs	SILURIAN
Uinta	JURASSIC	CARBONIFEROUS	Laketown dolomite
Bridger	Morrison	Pennsylvanian	ORDOVICIAN
Green River	Salt Wash	Oquirrh	Eureka quartzite
Upper	San Rafeal Gr.	Weber	Pogonip limestone
Middle	Summerville	Morgan	CAMBRIAN
Lower	Bluff sandstone	Hermosa	Lynch
Wasatch	Curtis	Upper	Bowman
Colton	Entrade	Lower	Tapeats
Flagstaff	Moab tongue	Molas	Ophir
Almy	Carmel	Paradox 5712	Tintic
Paleocene	Glen Canyon Gr.	A	PRE-CAMBRIAN
Current Creek	Navajo	B	Cutler-Honaker Trail 4750
North Horn	Kayento	C	
CRETACEOUS	Wingate	Manning Canyon	
Montana	TRIASSIC	Mississippian	
Mesaverde	Chinle 1695	Chainman shale	
Price River	Shinarump 2528	Humbug	
Blackhawk	Moenkapi 5	Joana limestone	

ACME VISIBLE CROZET VIRGINIA #78846-8

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-4495

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	X	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado August 9, 1958

Navajo "A"

Well No. 10 is located 660 ft. from {N/S} line and 460 ft. from {E/W} line of sec. 21

SW/4, SW/4, Sec. 21 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) SLM (Meridian)

White Mesa (Field) San Juan County (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ Ungraded ground above sea level is 4466.0 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drill 17-1/4" hole to approximately 150', set 150' of 13-3/8" conductor pipe and cement to surface. Drill 11" hole to approximately 1500', set 8-5/8" casing and cement to surface. Drill 7-7/8" hole to total depth of approximately 5750' and run 5-1/2" casing and cement with approximately 250 sacks. Complete in Paradox formation.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Company

Address Box 548

Cortez, Colorado

By F. W. Shelton

Title F. W. Shelton
Supt.

10

Company PHILLIPS PETROLEUM COMPANY

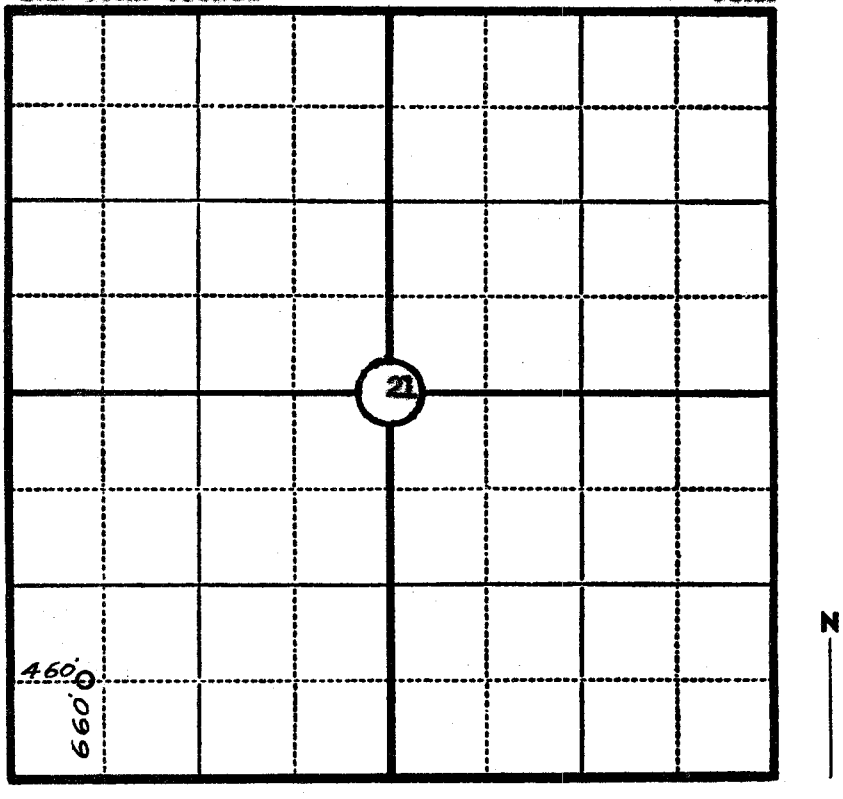
Lease NAVAJO DESERT Well No.

Sec. 21, T. 41 S., R. 24 E., S.L.M.

Location 660' FROM THE SOUTH LINE AND 460' FROM THE WEST LINE.

Elevation 4466.0 UNGRADED GROUND.

SAN JUAN COUNTY UTAH



Scale—4 inches equal 1 mile.

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

James P. Leese

Seal:

Registered Land Surveyor.
James P. Leese
Utah Reg. No. 1472

Surveyed 7 August, 19 58

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

August 13, 1958

Phillips Petroleum Company
P. O. Box 548
Cortez, Colorado

Attention: F. W. Shelton, Superintendent

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Navajo A-10, which is to be located 660 feet from the south line and 460 feet from the west line of Section 21, Township 41 South, Range 24 East, SLBM, San Juan County, Utah.

This is to confirm our verbal approval of August 8, 1958, to drill said well, subject to the following conditions:

> As the well location is 36.3 feet N. of land claimed by Continental Oil Company to be included in their lease No. 14-30-603-407, drilling is approved subject to communitization of the applicable well spacing unit (W½ SW¼ or SW¼ SW¼, Sec. 21, Township 41 South, Range 24 East, SLBM), if final adjudication of the lease boundary results in diverse ownership in said unit. Said communitization shall be effective after the date of this approval.

This approval terminates within 90 days if the above mentioned well is not spudded in within said period.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
SECRETARY

CBF:co

cc: Phil McGrath
USGS, Farmington,
New Mexico

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-353

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado August 30, 1958, 19

Desert "A"
Well No. 10 is located 660 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 20

SW SW Sec. 20 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) SLM (Meridian)

Ratherford (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the Ungraded Ground above sea level is 4854 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drilled 7-7/8" hole to 5824' Drlrs. Meas. at 8AM 8-21-58. Ran Schlumberger Electric-Induction and Micro Log to 5822'. Set and cemented 179 jts. 5-1/2"OD 15.5# & 14# J-55 ST&C A Cond. Casing at 5825.08'RKB with 132 sx. Neat Cement, 100 sx. Diacel "D", 496# Calcium Chloride. Pumped plug to 5794' at 6:55 AM 8-22-58. WOC 24 hrs. Tested casingat 750# for 30 mins. Tested OK

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Co.

Address Box 548

Cortez, Colorado

By F. W. Shelton

Title Dist. Supt.

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

Form 9-331 b
(April 1952)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-355

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado September 10, 1958

Well No. Navajo "A" 10 is located 660 ft. from {S} line and 460 ft. from {W} line of sec. 21

SW SW Sec. 21 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) S.L.M. (Meridian)

White Mesa (Field) San Juan County (County or Subdivision) Utah (State or Territory)

The elevation of the ungraded ground above sea level is 4466 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Spudded 8 PM 8-26-58. Drilled 17-1/2" hole to 168'. Set & cemented 13-3/8" OD 27.1# Armco SW SJ "A" cond. casing at 168.08' RKB with 175 sx. Neat reg. cement. Pumped plug to 139'. Cement circulated. Job completed at 3:30 P.M. 8-27-58. WOC 24 hrs. Tested casing with 350# for 30 minutes - okay.

Drilled 11" hole to 1692'. Set & cemented 53 jts. 8-5/8" OD 24# J-55 STAC R-2 "A" cond. casing at 1679.92' RKB with 330 sx. Neat Reg. cement, 126 sx. Diacel "D", 620# Calcium chloride, 165# flocele, 660# tuff plug, followed with 125 sx. Neat Reg. cement on bottom. Pumped plug to 1656' at 3:40 A.M. 9-1-58. Cement did not circulate. Ran 155' of 1" pipe down annulus to top of cement and recemented to surface with 28 sx. neat reg. cement. WOC 24 hours. Tested casing with 700# for 30 minutes - okay.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Company

Address P. O. Box 548

Cortez, Colorado

By C. H. Boles

Title District Superintendent

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

Form 9-331 b
(April 1952)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency: Navajo

Allottee: Tribal

Lease No.: 14-20-603-355

71/18
12/31

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado December 4, 1958

Navajo "A" Well No. 10 is located 660 ft. from ~~N~~ S line and 460 ft. from ~~E~~ W line of sec. 21

SW SW Sec 21 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) SLM (Meridian)

White Mesa (Field) San Juan County (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ ungraded ground above sea level is 4466 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drilled 7-7/8" hole to 5952'. Ran Schlumberger Electric Induction and Micro caliper logs to 5952. Set and cemented 147 jts 5-1/2" OD 15.5# and 14# J-55 ST&C casing at 5951.91' w/132 sx reg. cement, 100 sx Diacel D, 496# Calcium chloride. Pumped plug to 5922 at 7:10 PM 9/22/58. WOC 24 hrs and tested casing to 750# for 30 minutes. Held o.k.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company: Phillips Petroleum Company

Address: Box 548
Cortez, Colorado

By: C. N. Boles

Title: District Superintendent

W

W

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Navajo
SERIAL NUMBER 14-20-603-355
LEASE OR PERMIT TO PROSPECT Tribal

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Phillips Petroleum Company Address P. O. Box 548, Cortez, Colorado
Lessor or Tract Navajo "A" Field White Mesa State Utah
Well No. 10 Sec. 21 T. 41S R. 24E Meridian S.L.M. County San Juan
Location 660 ft. {N. / S.} of S Line and 460 ft. {E. / W.} of W Line of Sec. 21 Elevation 4976 (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed C. W. Beale

Date February 9, 1959 Title District Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling August 26, 19 58 Finished drilling September 20, 19 58

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5735 to 5904 No. 4, from to
No. 2, from to No. 5, from to
No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Water shows in all sands from surface to 1695'
No. 2, from to No. 3, from to
No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13-3/8	47.1#	8 rd	J-55	162	Baker		5735	5747	Oil Prod
8-5/8	24#	8 rd	J-55	1690	"		5752	5780	" "
5-1/2	15.5#	8 rd	J-55	155	"		5802	5890	" "
5-1/2	14#	8 rd	J-55	5817	"		5898	5904	" "

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8	162	175	Circulate		
8-5/8	1692	800 cu ft	Circulate (280 additional sx added down annulus)		
5-1/2	5852	550 cu ft	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity			

TOOLS USED

Rotary tools were used from 0 feet to 5952 feet, and from ---- feet to ---- feet

Cable tools were used from -- feet to -- feet, and from ---- feet to ---- feet

DATES

February 9, 19 59

Put to producing September 30, 19 58

The production for the first 24 hours was 786 barrels of fluid of which 100 % was oil; ---- % emulsion; ---- % water; and ---- % sediment.

Gravity, °Bé. 42

If gas well, cu. ft. per 24 hours ----

Gallons gasoline per 1,000 cu. ft. of gas ----

Rock pressure, lbs. per sq. in. 220# to 180#

EMPLOYEES

Moran Bros., Inc., Driller

----, Driller

----, Driller

----, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
1695	2528		Chinle
2528	2565		Shinarump
2565	2680		Moenkopi
2680	2815		Cutler - Hoskinini Equivalent
2815	3018		Cutler - De Chelly Member
3018	4752		Cutler - Organ Rock Member
4752	5952		Cutler - Honaker Trail
5712	5952		Paradox
5952	5921		PBTD - top cement plug

W/

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

Spudded 8 PM 8-26-58. Drilled 17-1/2" hole to 168'. Set and cemented 13-3/8" OD 27.1# Armco SW SJ "A" conditioned casing at 168.08' RKB with 175 sx. neat regular cement. Pumped plug to 139'. Cement circulated. Job completed at 3:30 P.M. 8-27-58. WOC 24 hours. Tested casing with 350# for 30 minutes - okay.

Drilled 11" hole to 1692'. Set and cemented 53 jts. 8-5/8" OD 24# J-55 ST&C B-2 "A" conditioned casing at 1679.92' RKB with 330 sx. neat regular cement, 126 sx. Diacel "D", 120# calcium chloride, 165# flocele, 660# tuff plug, followed with 125 sx. neat regular cement on bottom. Pumped plug to 1656' at 3:40 A.M. 9-1-58. Cement did not circulate. Ran 155' of 1" pipe down annulus to top of cement and recemented to surface with 28 sx. neat regular cement. WOC 24 hours. Tested casing with 700# for 30 minutes - tested okay.

Drilled 7-7/8" hole to 5952'. Ran Schlumberger Electric Induction and Micro caliper logs to 5952'. Set and cemented 147 jts 5-1/2" OD 15.5# and 14# J-55 ST&C casing at 5951.91' with 132 sacks regular cement, 100 sacks Diacel "D", 496# calcium chloride. Pumped plug to 5922' at 7:10 P.M. 9/22/58. WOC 24 hours and tested casing to 750# for 30 minutes - held o.k.

Ran tubing and checked top of cement at 5921'. Pulled tubing, ran Gamma Ray Neutron collar locator log to 5920'. Perforated 5-1/2" casing with 4 - 15/16" bullet holes per foot from 5735-47, 5752-80, 5882-90, 5898-5904. Total 54' - 216 holes. Ran 2-7/8" OD EUE tubing and set at 5909.82'. Packer set at 5618.78'. Displaced water with 92 barrels oil and acidized with 5000 gallons regular 15% acid. Flushed with 36 barrels oil. Maximum pressure 3300#, minimum pressure 2400#. Average treating rate 4.8 BPM at 3100#, average flush rate 6BPM at 3300#. Well bled from 3300# to 2000# in 5 minutes after pump shut down. Flowed 139 barrels of oil in 4 hours through 3/4" choke.

24 hour rate: 786 BOPD, 460 MCFGPD, GOR 584, producing from Paradox.

Form 9-330 C O P Y

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Navajo
SERIAL NUMBER 14-20-603-355
LEASE OR PERMIT TO PROSPECT Tribal

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Phillips Petroleum Co. Address P. O. Drawer 1150, Cortez, Colorado
Lessor or Tract Navajo "A" Field White Mesa State Utah
Well No. 10 Sec. 21 T. 41S R. 24E Meridian S.L.M. County San Juan
Location 660 ft. {N. / S.} of S Line and 460 ft. {E. / W.} of W Line of Sec. 21 Elevation 4976 (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed [illegible]

Date February 9, 1959 Title District Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling August 26, 1958 Finished drilling September 20, 1958

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from ____ to ____ No. 4, from ____ to ____
No. 2, from ____ to ____ No. 5, from ____ to ____
No. 3, from ____ to ____ No. 6, from ____ to ____

IMPORTANT WATER SANDS

Water shows in all sands from surface to 1695'

No. 1, from ____ to ____ No. 3, from ____ to ____
No. 2, from ____ to ____ No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13-3/8	27.1#	SW SJ	Armco	162	Baker		5735	5747	Oil Prod.
8-5/8	24#	8 rd	J-55	1690	"		5752	5780	" "
5-1/2	15.5#	8 rd	J-55	155	"		5882	5890	" "
5-1/2	14#	8 rd	J-55	5817	"		5898	5904	" "

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8	168	175	Circulate		
8-5/8	1692	800 cu ft	Circulate (280 additional sx added down annulus)		
5-1/2	5952	550 cu ft	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material ____ Length ____ Depth set ____
Adapters—Material ____ Size ____

SHOOTING RECORD

FOLD | MARK

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 5952 feet, and from ..... feet to ..... feet

Cable tools were used from — feet to — feet, and from ..... feet to ..... feet

DATES

February 9, 19 59 Put to producing September 30, 19 58

The production for the first 24 hours was 786 barrels of fluid of which 100 % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, °Bé. 42

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. 220# - 180#

EMPLOYEES

Moran Bros., Inc., Driller ....., Driller

....., Driller ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
1695	2528		Chinle
2528	2565		Shinarump
2565	2680		Moenkopi
2680	2815		Cutler - Hoskinini Equivalent
2815	3018		Cutler - De Chelly Member
3018	4752		Cutler - Organ Rock Member
4752	5712		Cutler - Honaker Trail
5712	5952		Paradox
5952	5921		PBTD - top cement plug

FROM— | TO— | TOTAL FEET | FORMATION

FORMATION RECORD—Continued

[OVER]

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

Spudded 8 PM 8-26-58. Drilled 17-1/2" hole to 168'. Set and cemented 13-3/8" OD 27.1# Armco SW SJ "A" conditioned casing at 168.08' RKB with 175 sx. neat regular cement. Pumped plug to 139'. Cement circulated. Job completed at 3:30 P.M. 8-27-58. WOC 24 hours. Tested casing with 350# for 30 minutes - okay.

Drilled 11" hole to 1692'. Set and cemented 53 jts. 8-5/8" OD 24# J-55 ST&C R-2 "A" conditioned casing at 1679.92' RKB with 330 sx. neat regular cement, 126 sx. Diacel "D", 620# calcium chloride, 165# flocele, 660# tuff plug, followed with 125 sx. neat regular cement on bottom. Pumped plug to 1656' at 3:40 A.M. 9-1-58. Cement did not circulate. Ran 155' of 1" pipe down annulus to top of cement and recemented to surface with 28 sx. neat regular cement. WOC 24 hours. Tested casing with 700# for 30 minutes - tested okay.

Drilled 7-7/8" hole to 5952'. Ran Schlumberger Electric Induction and Micro caliper logs to 5952'. Set and cemented 147 jts. 5-1/2" OD 15.5# and 14# J-55 ST&C casing at 5951.91' with 132 sacks regular cement, 100 sacks Diacel "D", 496# calcium chloride. Pumped plug to 5922' at 7:10 PM 9-22-58. WOC 24 hours and tested casing to 750# for 30 minutes - held o.k.

Ran tubing and checked top of cement at 5921'. Pulled tubing, ran Gamma Ray Neutron Collar Locator log to 5920'. Perforated 5-1/2" casing with 4 - 15/16" bullet holes per foot from 5735-47, 5752-80, 5882-90, 5898-5904. Total 54' - 216 holes. Ran 2-7/8" OD EUE tubing and set at 5909.82'. Packer set at 5618.78'. Displaced water with 92 barrels oil and acidized with 5000 gallons regular 15% acid. Flushed with 36 barrels oil. Maximum pressure 3300#, minimum pressure 2400#. Average treating rate 4.8 BPM at 3100#, average flush rate 6 BPM at 3300#. Well bled from 3300# to 2000# in 5 minutes after pump shut down. Flowed 139 barrels of oil in 4 hours through 3/4" choke.
24 hour rate: 786 BOPD, 460 MCFGPD, GOR 584, producing from Paradox.

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-355

N-H

3-10

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF ~~SHOOTING OR~~ ACIDIZING	X
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Navajo "A" Cortez, Colorado February 5, 1959

Well No. 10 is located 660 ft. from {N/S} line and 460 ft. from {E/W} line of sec. 21

SW SW Sec. 21 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) S.L.M. (Meridian)

White Mesa (Field) San Juan County (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ ungraded ground above sea level is 4466 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Previous Production: Well dead - last test flow ed 51 barrels oil, no water in 9-3/4 hrs through 3/4" choke. FTP 60 to 0# -- no test on gas.
Moved in and rigged up Bivens & Smoot Well Service Unit. Re-acidized Paradox perforations through 2-7/8" OD 6.5# EUE tubing with 300 gallons Dowell Jel X-830 plugging agent, 3000 gals. regular 15% acid, 300 gals. Jel X-830 plugging agent, and 3000 gals. Jel X-100 retarded acid. Maximum pressure 2200#. Minimum pressure 1600#. Pumping rate 9 BPM. Flushed w/38 barrels oil. Maximum flush rate 2600#, minimum flush rate 1600#. Average flush rate 8 BPM. Total acid water and flush to recover: 195 barrels. Job complete 10 A.M. 11/1/58. Waited 5 hours, swabbed and flowed well to pits for 6 hours to clean up, recovered estimated 195 barrels, acid water and flush. Moved out Well Service Unit.
Hooked up well to battery. Took 5 hour flowing test as follows: Flowed 100 barrels oil, .4% G.O. acid water in 5 hours through 34/64" choke. (cont'd on back)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Company

Address P. O. Box 548
Cortez, Colorado

By C. M. Boles
C. M. Boles

Title District Superintendent

(Continued)

FEB 9 '59

Starting and final tubing pressure 150#. Separator pressure 18#. 24 hour rates: 480 BOPD 228 MCFGPD, GOR 476.
Flowed 362 BO, .3% G.O. Acid water in 24 hours through 31/64" choke. 175 MCFGPD. GOR 484. Flowing tubing pressure 145#. Separator pressure 14#.
Flowed 323 BO, no water in 24 hours thru 32/64" choke. 175 MCFGPD. GOR 542. Flowing tubing pressure 125#. Separator pressure 13#.
Flowed 11 barrels oil, .3% G.O. in 4 hours through 24/64" choke. NR of gas. Flowing tubing pressure 125#. Separator pressure 12#. Well died at 11:00 A.M. 11-5-58.
Well dead. Setting pumping unit and base. 11-6 & 8-58.
11-9-58: Moved in Biven & Smoot Well Service Unit. Pulled 2-7/8" tubing, packer, and collar stop. Re-ran 2-7/8" OD 6.5# EUE J-55 tubing w/marsh gas anchor and Baker tubing tension anchor. Tubing set at 5895.90'. Tubing intake at 5880.72'. Baker tubing tension anchor set at 5587.01'.
Ran fluid packed pump No. F-7 (2-1/2" x 1-3/4" x 12' x 16' double valved pump) on tapered 3/4", 7/8", and 1" rod string. Pump set at 5873.74'. Hooked up well to pump. Moved out Biven & Smoot Well Service Unit, 11/10/58.
Well shut in 11/30/58 due to Field Wide USGS Shut In Order to prevent waste of gas.
12/1/58 Pumped and flowed 650 BO, no water in 24 hours. 3/4" choke.
12/2/58 Pumped and flowed 699 BO, no water in 24 hours.3/4" choke.
12/3/58 Pumped and flowed 586 BO, no water in 24 hours. 3/4" choke.
12/4-15 Pumping and flowing.
12/16 Pumped and flowed 261 BO, no water in 24 hours through 3/4" choke at 12-74" SPM. 160 MCFGPD. GOR 614. Tubing and casing pressure 65#. Separator pressure 53#. Producing from Paradox Formation.

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-355

71-H

SUNDRY NOTICES AND REPORTS ON WELLS

3-10

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO ~~SHOOT OR~~ ACIDIZE	X	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado February 5, 1959

Navajo "A"

Well No. 10 is located 660 ft. from {N/S} line and 460 ft. from {E/W} line of sec. 21

SW SW Sec. 21 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) SLM (Meridian)

White Mesa (Field) San Juan County (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ ungraded ground above sea level is 4466 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Move in Well Service Unit, re-acidize Paradox perforations from 5735-47, 5752-5780, 5882-90, 5898-5904 with 300 gals Dowell Jel X-830 plugging agent, 3000 gallons Dowell regular 15% acid, 300 gallons Jel X-830 plugging agent and 3000 gallons Jel X-100 retarded acid. Swab well in and place on production -- previous production -- well dead.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Company

Address Box 548
Cortez, Colorado

By C. M. Boles

Title District Superintendent

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

PHILLIPS PETROLEUM COMPANY

P. O. Drawer 1150
Cortez, Colorado

May 27, 1959

In re: Well Navajo A-10, SW 21-41S-24E,
SLBM, San Juan County, Utah

Utah Oil & Gas Conservation Commission
Room 310 Newhouse Building
Salt Lake City, Utah

Attention: Mr. Cleon B. Feight

Dear Sir:

In reply to your letter of May 26, 1959 requesting Well Log on the subject well, we wish to advise that this log was prepared and submitted February 9, 1959. However, as you do not have it, we are attaching duplicate copies.

Very truly yours,
Phillips Petroleum Company

C. M. Boles
District Superintendent

HGC:bh
Attach.

It's Performance That Counts
FLITE FUEL — TROP-ARTIC

FIN . REPORT INDIVIDUAL WELL STAT (Formerly Navajo A-10)

Lease Ratherford Unit Well No. 21-14 Authorization No. Expense

Summary of Work Performed:

December 18, 1974

Acidized with 2000 gals 28% acid.

AVERAGE DAILY PRODUCTION

	Field and Formation	Oil	Gas	Water
Before Work	Greater Aneth - Paradox Desert Creek Zone I	122	55	0
After Work	" " "	172	85	0
Before Work				
After Work				

DATE P.T.D.

DAILY REPORT OF WORK PERFORMED

1974 Dec. 27

RATHERFORD UNIT NO. 21-14 PTD 5921. /ACIDIZE WELL, INITIAL REPORT/ MI RU R AND R WS UNIT 12/16/74. PL/D RODS AND TBG., WIH W/PKR., SET PKR AT 5718 FT. DOWELL TST/D TBG. TO 3500 LB. LOADED ANNULUS, PRESS UP TO 800 LB., ACIDIZED W/2000 GAL. 28 PERCENT HCL AS FOLLOWS, PMP/D 2000 GAL. GELLED WTR., 7 1/2 BPM AT 100 LB., 2000 GAL 28 PERCENT HCL AT 7 BPM AT 100 LB., 3000 GAL GELLED WTR. 7 BPM AT 100 LB. 5700 GAL WTR AT 7 BPM AT 100 LB., ISIP 0 LB. ACID CONTAINED 5 GAL. L-37, 4 GAL. F-75, 20 LB. L-41, 4 GAL. WW-35. TOTAL LOAD TO REC. 460 BW. COOH W/PKR. WIH W/TBG., RODS AND PMP. TO PUT WELL BACK ON PRODUCTION. REL. WS UNIT 12/18/74. NO AFE ISSUED. LOCATION/ 660 FSL AND 460 FWL, SEC. 21,T41S,R41E, SAN JUAN , CO., UTAH. ANETH FIELD. DESERT CREEK RES. PRODUCTION BEFORE ACID JOB, 24 HRS. TST. 122 BOPD W/TRACE WTR. 11/6/74. AFTER ACID JOB, 24 HR TSTS,12/25/74 174 BOPD W/TRACE WTR. 12/26/74 172 BOPD, W/TRACE WTR. 12/27/74 172 BOPD, W/ TRACE WTR. FINAL REPORT..

1 - Bvlle E&P
1 - Denver E&P
1 - R. N. Hughes
1 - G. R. Hudson
1 - File

8/26/75
Date Prepared

F. L. Morgan
District Approval

Form 903 8-69

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Phillips Petroleum Company

3. ADDRESS OF OPERATOR
P. O. Box 2920, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
660' FSL and 460' FWL (SW SW)

5. LEASE DESIGNATION AND SERIAL NO.
14-20-603-355

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Tribal

7. UNIT AGREEMENT NAME
SW-I-4192

8. FARM OR LEASE NAME
Rutherford Unit

9. WELL NO.
21-14

10. FIELD AND POOL, OR WILDCAT
Greater Aneth

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 21-41S-24E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4973 KB

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]				

(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.) *

SEE ATTACHED SHEET

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

SIGNED [signature] TITLE Area Superintendent DATE 8/26/75

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

3 - USGS, Farmington NM
2 - Utah O&GCC, Salt Lake City UT
1 - File
1 - Superior Oil Co., Cortez CO

*See Instructions on Reverse Side

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Phillips Oil Company

3. ADDRESS OF OPERATOR: P. O. Box 2920, Casper, WY 82602

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

5. LEASE DESIGNATION AND SERIAL NO.: 96-004192

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo

7. UNIT AGREEMENT NAME: Ratherford Unit

8. FARM OR LEASE NAME:

9. WELL NO.:

10. FIELD AND POOL, OR WILDCAT: N/A

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

14. PERMIT NO.: See Attached

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

12. COUNTY OR PARISH: San Juan

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]	(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.)*

To show change of Operator only. Phillips Oil Company assumed operations effective December 1, 1983 from Phillips Petroleum Company. See attached for list of wells.

100 wells

21-14

RECEIVED DEC - 8 1983

Org. & 3-BLM
1-The Navajo Nation
1-Mary Wiley Black
1-Lawrence E. Brock
1-Cheveron USA
1-Ralph Faxel
1-Royal Hogan
1-W. O. Keller
1-Dee Kelly Corp.
1-Robert Klabzuba
1-Micheal J. Moncrief
1-Richard B. Moncrief
1-Lee W. Moncrief
1-Mary H. Morgan
1-W. A. Moncrief
1-W. A. Moncrief, Jr.
1-L. F. Peterson
1-Shell Oil Co.
1-Southland Royalty Co.
1-Superior Oil Co.
1-Leroy Shave
1-Texaco, Inc.
1-Wade Wiley, Jr.
1-Edwin W. Word, Jr.
1-File

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

SIGNED A. E. Stuart TITLE Area Manager DATE 12/6/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL NO.	WELL LOCATION	API NO.	STATUS
E14-12	SW NW Sec.14-T41S-R24E	43-037-15998	Act.
E14-13	NW SW Sec.14-T41S-R24E	43-037-15999	SI
10-44	SE SE Sec.10-T41S-R24E	43-037-30451	Act.
15-12	SW NW Sec.15-T41S-R24E	43-037-15715	Act.
15-14	SW SW Sec.15-T41S-R24E	43-037-15716	SI
15-22	SE NW Sec.15-T41S-R24E	43-037-30449	Act.
15-32	SW NE Sec.15-T41S-R24E	43-037-15717	Act.
15-33	NW SE Sec.15-T41S-R24E	43-037-15718	SI
15-41	NE NE Sec.15-T41S-R24E	43-037-15719	Act.
15-42	SE NE Sec.15-T41S-R24E	43-037-3-448	SI
16-12	SW NW Sec.16-T41S-R24E	43-037-15720	Act.
16-14	SW SW Sec.16-T41S-R24E	43-037-15721	Act.
16-32	SW NE Sec.16-T41S-R24E	43-037-15723	Act.
16-34	SW SE Sec.16-T41S-R24E	43-037-15724	SI
16-41	NE NE Sec.16-T41S-R24E	43-037-15725	Act.
17-12	SW NW Sec.17-T41S-R24E	43-037-15726	Act.
17-14	SW SW Sec.17-T41S-R24E	43-037-15727	Act.
17-23	NE SW Sec.17-T41S-R24E	43-037-15728	Act.
17-32	SW NE Sec.17-T41S-R24E	43-037-15729	Act.
17-34	SW SE Sec.17-T41S-R24E	43-037-15730	Act.
17-41	NE NE Sec.17-T41S-R24E	43-037-15731	Act.
17-44	SE SE Sec.17-T41S-R24E	43-037-15732	Act.
18-11	NW NW Sec.18-T41S-R24E	43-037-15733	SI
18-13	NW SW Sec.18-T41S-R24E	43-037-15734	Act.
18-14	SW SW Sec.18-T41S-R24E	43-037-15735	Act.
18-23	NE SW Sec.18-T41S-R24E	43-037-30244	Act.
18-32	SW NE Sec.18-T41S-R24E	43-037-15736	Act.
18-34	SW SE Sec.18-T41S-R24E	43-037-15737	Act.
19-12	SW NW Sec.19-T41S-R24E	43-037-15739	Act.
19-14	SW SW Sec.19-T41S-R24E	43-037-15740	SI
19-32	SW NE Sec.19-T41S-R24E	43-037-15743	Act.
19-34	SW SE Sec.19-T41S-R24E	43-037-15744	Act.
20-12	SW NW Sec.20-T41S-R24E	43-037-15746	Act.
20-14	SW SW Sec.20-T41S-R24E	43-037-15747	Act.
20-32	SW NE Sec.20-T41S-R24E	43-037-15749	Act.
20-34	SW SE Sec.20-T41S-R24E	43-037-15750	Act.
21-12	SW NW Sec.21-T41S-R24E	43-037-15752	Act.
21-14	SW SW Sec.21-T41S-R24E	43-037-15753	Act.
21-23	NE SW Sec.21-T41S-R24E	43-037-13754	Act.
21-32	SW NE Sec.21-T41S-R24E	43-037-15755	Act.
21-33	NW SE Sec.21-T41S-R24E	43-037-30447	SI
21-34	SW SE Sec.21-T41S-R24E	43-037-15756	Act.
22-12	SW NW Sec.22-T41S-R24E	43-037-15757	SI
22-14	SW SW Sec.22-T41S-R24E	43-037-15758	SI
24-42	SE NE Sec.24-T41S-R24E	43-037-15863	Act.
28-11	NW NW Sec.28-T41S-R24E	43-037-30446	Act.
28-12	SW NW Sec.28-T41S-R24E	43-037-15336	Act.
29-12	SW NW Sec.29-T41S-R24E	43-037-15337	Act.
29-32	SW NE Sec.29-T41S-R24E	43-037-15339	Act.

Form 3160-5
December 1989

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires September 30, 1990

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.

RECEIVED
JUN 06 1990
DIVISION OF
OIL, GAS & MINING

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: Navajo
7. If Unit or CA, Agreement Designation: SW-I-4192
8. Well Name and No.: Ratherford Unit #21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or Exploratory Area: Greater Aneth
11. County or Parish, State: San Juan County, Utah

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other
2. Name of Operator: Phillips Petroleum Company
3. Address and Telephone No.: P. O. Box 1150, Cortez, CO 81321 (303) 565-3426
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL, 460' FWL, Sec. 21-T41S-R24E

12. **CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[X] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other	

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

13. 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.)*

This well is suspected to have developed a casing leak. Production has gone from 53 BOPD and 1 BWPD to all water. In September, 1987 a casing leak was squeezed from 2826-2907'. The suspected casing leak is anticipated to be in the same area as the leak in 9/87. The squeeze procedure will be performed using a cement retainer set 100' above the top of the leak. The cement to be used will be 25 sx of RFC followed with 50 sx of Class G. Following the drill out and pressure test of the squeeze, the Desert Creek perforations will have an acid clean-up performed. This work was approved by Mr. Ken Townsend with the BLM on 6/1/90. Well work commenced on 6/4/90.

Distribution
5 - BLM, Farmington
2 - Utah O&GCC
1 - PPCo. Cortez
1 - PPCo. Casper

14. I hereby certify that the foregoing is true and correct
Signed S. H. Oden Title District Superintendent Date June 4, 1990

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 6-11-90
BY: John R. Baza

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

Form 3160-5
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUL 19 1990
DIVISION OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires September 30, 1990

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reenter to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: Navajo
7. If Unit or CA, Agreement Designation: Ratherford Unit SW-I-4192
8. Well Name and No.: Ratherford Unit #21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or Exploratory Area: Greater Aneth
11. County or Parish, State: San Juan County, Utah

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other
2. Name of Operator: Phillips Petroleum Company
3. Address and Telephone No.: P. O. Box 1150, Cortez, CO 81321 (303) 565-3426
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL & 460' FWL, SW SW, Sec. 21-T41S-R24E

12. **CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
[ ] Notice of Intent	[ ] Abandonment	[ ] Recompletion	[ ] Plugging Back
[X] Subsequent Report	[X] Casing Repair	[ ] Altering Casing	[X] Other Acidize
[ ] Final Abandonment Notice	[ ] Change of Plans	[ ] New Construction	[ ] Non-Routine Fracturing
	[ ] Water Shut-Off	[ ] Conversion to Injection	

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

13. 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.)*

June 4, 1990 Through June 16, 1990

MI & RU well service unit 6/4/90. Pull rods and pump, ND wellhead, NU BOP. GIH w/ bit & scraper & clean out well to 5916'. GIH w/RBP & pkr & isolated 2 csg leaks (2898-2929' and 3952-4027'). Set RBP @ 4540' and spot 10 gal sand on top of RBP. COOH w/pkr. Set 5-1/2" Arrow cmt retainer at 3929'. Spot 75 sxs Class G cmt w/ additives to retainer. Displace 10 bbls cmt into leak. Sting out of retainer. Pull tbg to 2939' and mix & pump 16 sxs Class G cmt w/additives, displaced to achieve 205' balance plug. Pulled 7 stds tbg & reverse out. Left 1300 psi on well & closed it in for cmt to cure. GIH w/bit & scraper, tagged top of cmt @ 2822.59'. Drld out cmt & retainer to 4015'. Tested squeeze to 1000 psi. Held OK. COOH w/bit & scraper. GIH w/retrieving head & engaged RBP. COOH and LD RBP. GIH w/blade bit & scraper on power swivel & cleaned out well to 5921'. Set pkr at 5657'. Acidized perfs (5735-5904' OA) w/4000 gals 15% DAD acid and total of 750 gals diverter made up of 40# gelled brine w/2 ppg rock salt. ISIP 2030 psi, 5 min 1690 psi, 10 min 1550 psi, 15 min 1460 psi. Flwd & swbd back load. ND BOP, NU WH, ran pump & rods & returned well to producing status 6/16/90.

Test Before Workover: 53 BOPD, 0 BWPD, 19 MCF
Test After Workover: 60 BOPD, 83 BWPD, 22 MCF

Distribution on back.

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

Signed S. H. Oden Title District Superintendent Date July 13, 1990

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

MONTHLY OIL AND GAS PRODUCTION REPORT

RECEIVED
AUG 16 1993
DIVISION OF
OIL, GAS & MINING

OPERATOR NAME AND ADDRESS:

P J KONKEL
PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON NM 87401

UTAH ACCOUNT NUMBER: N0772

REPORT PERIOD (MONTH/YEAR): 6 / 93

AMENDED REPORT ☐ (Highlight Changes)

Well Name API Number	Entity	Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
#21-23 4303713754	06280	41S 24E 21	DSCR	POW	29	1374	883	58
#3-44 4303715031	06280	41S 24E 3	DSCR	POW	30	111	94	2905
#3-14 4303715124	06280	41S 24E 3	DSCR	POW	30	67	23	302
#9-12 4303715126	06280	41S 24E 9	DSCR	POW	30	112	654	17363
#9-14 4303715127	06280	41S 24E 9	DSCR	POW	30	201	315	423
#28-12 4303715336	06280	41S 24E 28	PRDX	POW	29	112	47	2428
#29-12 4303715337	06280	41S 24E 29	PRDX	POW	29	56	0	672
#29-32 4303715339	06280	41S 24E 29	DSCR	POW	29	1402	287	2224
#29-34 4303715340	06280	41S 24E 29	DSCR	POW	29	757	48	0
#30-32 4303715342	06280	41S 24E 30	DSCR	POW	29	588	1049	3744
#3-12 4303715620	06280	41S 24E 3	DSCR	POW	30	268	11	363
#9-34 4303715711	06280	41S 24E 9	DSCR	POW	30	45	46	9800
#10-12 4303715712	06280	41S 24E 10	DSCR	POW	30	45	23	1088
					TOTALS	5138	3480	41370

USM 8-18-93

COMMENTS: Effective July 1, 1993, Phillips Petroleum Company has sold its interest in the Ratherford Unit to Mobil Exploration and Producing U.S., Incorporated, P. O. Box 633, Midland, Texas 79702. Mobil assumed operations on July 1, 1993.

I hereby certify that this report is true and complete to the best of my knowledge. Date: 8/11/93

Name and Signature: PAT KONKEL Pat Konkel

Telephone Number: 505 599-3452

(6/93)

19W21	43-037-15741	14-20-603-353	SEC. 19, T41S, R24E	NE/NW 660' FNL 1860' FWL	
19-22	43-037-31046	14-20-603-353	SEC. 19, T41S, R24E	SE/NW 1840' FNL; 1980' FWL	
19W-23	43-037-15742	14-20-603-353	SEC. 19, T41S, R24E	NE/SW 2080' FSL; 1860' FWL	
19-31	43-037-31047	14-20-603-353	SEC. 19, T41S, R24E	NW/NE 510' FNL; 1980' FEL	
19-32	43-037-15743	14-20-603-353	SEC. 19, T41S, R24E	SW/NE 1980' FNL; 1980' FEL	
19-33	43-037-31048	14-20-603-353	SEC. 19, T41S, R24E	NW/SE 1980' FSL; 1980' FEL	
19-34	43-037-15744	14-20-603-353	SEC. 19, T41S, R24E	SW/SE 660' FSL; 1980' FEL	
19W-41	43-037-15745	14-20-603-353	SEC. 19, T41S, R24E	NE/NE 660' FNL; 660' FEL	
19-42	43-037-30916	14-20-603-353	SEC. 19, T41S, R24E	SE/NE 1880' FNL, 660' FEL	
19W-43	43-037-16420	14-20-603-353	SEC. 19, T41S, R24E	NE/SE 1980' FSL; 760' FEL	
19-44	43-037-31081	14-20-603-353	SEC. 19, T41S, R24E	SE/SE 660' FSL; 660' FEL	
19-97	43-037-31596	14-20-603-353	SEC. 19, T41S, R24E	2562' FNL, 30' FEL	
20-11	43-037-31049	14-20-603-353	SEC. 20, T41S, R24E	NW/NW 500' FNL; 660' FWL	
20-12	43-037-15746	14-20-603-353	SEC. 20, T41S, R24E	1980' FNL, 660' FWL	
20-13	43-037-30917	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 2140' FSL, 500' FWL	
20-14	43-037-15747	14-20-603-353	SEC. 20, T41S, R24E	660' FSL; 660' FWL	
20W-21	43-037-16423	14-20-603-353	SEC. 20, T41S, R24E	660' FNL; 1880' FWL	
20-22	43-037-30930	14-20-603-353	SEC. 20, T41S, R24E	SE/NW 2020' FNL; 2090' FWL	
20W-23	43-037-15748	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 2080; 2120' FWL	
20-24	43-037-30918	14-20-603-353	SEC. 20, T41S, R24E	SE/SW 820' FSL; 1820' FWL	
20-31	43-037-31050	14-20-603-353	SEC. 20, T41S, R24E	NW/NE 660' FNL; 1880' FEL	
20-32	43-037-15749	14-20-603-353	SEC. 20, T41S, R24E	SW/NE 1980' FNL, 1980' FEL	
20-33	43-037-30931	14-20-603-353	SEC. 20, T41S, R24E	NW/SE 1910' FSL; 2140' FEL	
20-34	43-037-15750	14-20-603-353	SEC. 20, T41S, R24E	660' FSL; 1850' FEL	
20W-41	43-037-15751	14-20-603-353	SEC. 20, T41S, R24E	NE/NE 660' FNL; 660' FEL	PA'd
20-42	43-037-31051	14-20-603-353	SEC. 20, T41S, R24E	SE/NE 1980 ' FNL; 660' FEL	
20W-43	43-037-16424	14-20-603-353	SEC. 20, T41S, R24E	2070' FSL; 810' FEL	
20-44	43-037-30915	14-20-603-353	SEC. 20, T41S, R24E	SE/SE 620' FSL; 760' FEL	
20-66	43-037-31592	14-20-603-353	SEC. 20, T41S, R24E	SW/NW 1221' FWL; 1369' FNL	
21-11	43-037-31052	14-20-603-355	SEC. 21, T41S, R24E	NW/NW 660' FNL; 660 FWL	
21-12	43-037-15752	14-20-603-355	SEC. 21, T41S, R24E	2080' FNL; 660' FWL	
21-13	43-037-30921	14-20-603-355	SEC. 21, T41S, R24E	NW/SW 2030' FSL; 515' FWL	
* 21-14	43-037-15753	14-20-603-355	SEC. 21, T41S, R24E	SW/SW 660' FSL; 460' FWL	
21W-21	43-037-16425	14-20-603-355	SEC. 21, T41S, R24E	NE/NW 660' FNL; 2030' FWL	
21-32	43-037-15755	14-20-603-355	SEC. 21, T41S, R24E	SW/NE 1880' FNL; 1980' FEL	
~~21-33~~	~~NA~~	~~14-20-603-355~~	~~SEC. 21, T41S, R24E~~	~~2000 FSL; 1860' FEL~~	
21-34	43-037-15756	14-20-603-355	SEC. 21, T41S, R24E	SW/SE 660' FSL; 1980' FEL	
21W-41	43-037-16426	14-20-603-355	SEC. 21, T41S, R24E	660' FNL; 810' FEL	PA'd
21W-43	43-037-16427	14-20-603-355	SEC. 21, T41S, R24E	NE/NE 1980' FSL; 660' FEL	
24-11	43-037-15861	14-20-603-247A	SEC. 24, T41S, R24E	510' FNL; 810' FWL	PA'd
24W-21	43-037-16429	14-20-603-247	SEC. 24, T41S, R24E	4695' FSL; 3300' FEL	PA'd
24W-23	43-037-16430	14-20-603-247	SEC. 24, T41S, R24E	2080' FSL; 660' FEL	
24-31W	43-037-15862	14-20-603-247A	SEC. 24, T41S, R24E	NW/NE 560' FNL; 1830' FEL	
24-32	43-037-31593	14-20-603-247A	SEC. 24, T41S, R24E	SW/NE 2121' FNL; 1846' FEL	
24-41	43-037-31132	14-20-603-247A	SEC. 24, T41S, R24E	NE/NE 660' FNL; 710' FEL	
24W-42	43-037-15863	14-20-603-247A	SEC. 24, T41S, R24E	660' FSL; 1980' FNL	
28-11	43-037-30445	14-20-603-409	SEC. 28, T41S, R24E	NW/NW 520' FNL; 620' FWL	
28-12	43-037-15336	14-20-603-409B	SEC. 28, T41S, R24E	SW/SE/NW 2121' FNL; 623' FWL	
29-11	43-037-31053	14-20-603-407	SEC. 29, T41S, R24E	NW/NW 770' FNL; 585' FWL	
29W-21	43-037-16432	14-20-603-407	SEC. 29, T41S, R24E	NE/NW 667' FNL; 2122' FWL	
29-22	43-037-31082	14-20-603-407	SEC. 29, T41S, R24E	SE/NW 2130' FNL; 1370' FWL	
29W-23	43-037-15338	14-20-603-407	SEC. 29, T41S, R24E	NE/SW 1846' FSL; 1832' FWL	
29-31	43-037-30914	14-20-603-407	SEC. 29, T41S, R24E	NW/NE 700' FNL; 2140' FEL	
29-32	43-037-15339	14-20-603-407	SEC. 29, T41S, R24E	1951' FNL; 1755' FEL	
29-33	43-037-30932	14-20-603-407	SEC. 29, T41S, R24E	NW/SE 1860' FSL; 1820' FEL	
29-34	43-037-15340	14-20-603-407	SEC. 29, T41S, R24E	817 FSL; 2096' FEL	
29W-41	43-037-16433	14-20-603-407	SEC. 29, T41S, R24E	557' FNL; 591' FEL	
29W-42	43-037-30937	14-20-603-407	SEC. 29, T41S, R24E	SE/NE 1850' FNL; 660' FEL	
29W-43	43-037-16434	14-20-603-407	SEC. 29, T41S, R24E	NE/SE 1980' FSL; 660' FEL	
30-21W	43-037-16435	14-20-603-407	SEC. 30, T41S, R24E	660' FNL; 1920' FWL	
30-32	43-037-15342	14-20-603-407	SEC. 30, T41S, R24E	SW/NE 1975' FNL; 2010' FEL	
30W-41	43-037-15343	14-20-603-407	SEC. 30, T41S, R24E	NE/NE 660' FNL; 660' FEL	
9-34	NA 43037157 11	NA 14206034043	NA Sec. 9, T. 41S, R. 24E	NA SWSE 660' FSL 1980 FEL	
12-43	43-307-31202	14-20-603-246	SEC. 12. T41S. R23E	2100' FSL;660 FEL	
12W31	43-037-15847	14-20-603-246	SEC. 12, T41S, R23E	661' FNL;, 1981' FEL	
13W24	43-037-15853	14-20-603-247	SEC. 13, T41S, R23E	SE/SW 660' FSL;3300'FEL	
15W23	43-037-16412	14-20-603-355	SEC. 15, T41S, R24E	2140' FSL;1820' FWL	
17-24	43-037-31044	14-20-603-353	SEC. 17, T41S, R24E	SE/SW 720' FSL; 1980' FWL	
18-13	43-037-15734	14-20-603-353	SEC. 18, T41S, R24E	NW/NW 1980' FSL;500' FWL	
18W32	43-037-15736	14-20-603-353	SEC. 18, T41S, R24E	SW/NE2140'FNL;1830' FEL	
20-68	43-037-31591	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 1276' FWL;1615' FSL	
21-23	43-037-13754	14-20-603-355	SEC. 21, T41S, R24E	NE/SW 1740 FSL 1740 FWL	
28W21	43-037-16431	14-20-603-409	SEC.29, T41S, R24E	660' FNL; 2022' FWL	

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR: MOBIL OIL CORPORATION

3. ADDRESS OF OPERATOR: P. O. BOX 633 MIDLAND, TX 79702

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

5. LEASE DESIGNATION & SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

8. FARM OR LEASE NAME

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

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

12. COUNTY: SAN JUAN

13. STATE: UTAH

14. API NO.

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

RECEIVED SEP 13 1993
DIVISION OF OIL, GAS & MINING

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)			

APPROX. DATE WORK WILL START _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) CHANGE OF OPERATOR			☐

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

DATE OF COMPLETION _____

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.)

* Must be accompanied by a cement verification report.

AS OF JULY1, 1993, MOBIL OIL CORPORATION IS THE OPERATOR OF THE RATHERFORD UNIT. ATTACHED ARE THE INDIVIDUAL WELLS.

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

SIGNED Shirley Todd TITLE ENV. & REG TECHNICIAN DATE 9-8-93

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

FORM 11

STATE OF UTAH
/ISION OF OIL, GAS AND MINING

MONTHLY OIL AND GAS DISPOSITION REPORT

OPERATOR NAME AND ADDRESS:

L.B. Sheffield
~~BRIAN BERRY~~
~~M E P N A~~ MOBIL
~~POB 219031 1807A RENTWR~~ P.O. DRAWER G
DALLAS TX 75221-9031 CORTEZ, Co. 81321

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 7 / 93

AMENDED REPORT ☐ **(Highlight Changes)**

*931006 updated. fee

ENTITY NUMBER	PRODUCT	GRAVITY BTU	BEGINNING INVENTORY	VOLUME PRODUCED	DISPOSITIONS TRANSPORTED	USED ON SITE	FLARED/VENTED	OTHER	ENDING INVENTORY
05980	OIL			177609	177609	0			
	GAS			72101	66216	5885			
11174	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	TOTALS			249710	243825	5885			

RECEIVED
SEP 13 1993
DIVISION OF
OIL, GAS & MINING

COMMENTS: PLEASE NOTE ADDRESS CHANGE. MOBIL ~~ASSO~~ PRODUCTION REPORTS WILL BE COMPILED AND SENT from the Cortez, Co. Office IN THE FUTURE.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 9/5/93

Name and Signature: Lowell B Sheffield

Telephone Number: 303 565 2212 ~~214 658 2528~~

(6/93)

FORM=NR0003.FRM 07/2

Sept 29, 1993

TO: Lisha Cordova - Utah Mining Oil & Gas

FROM: Janice Easley
BLM Farmington, NM
505 599-6355

Here is copy of Rutherford Unit Successor Operator.

4 pages including this one.

Ratherford Unit (GC)

RECEIVED
BLM
27 AM 11:44
070 FARMINGTON, NM

Navajo Area Office
P. O. Box 1060
Gallup, New Mexico 87305-1060

ARES/543

JUL 2 0 1993

Mr. G. D. Cox
Mobil Exploration and
Producing North America, Inc.
P. O. Box 633
Midland, Texas 79702

Dear Mr. Cox:

Enclosed for your information and use is the approved Designation of Operator between the Phillips Petroleum Company and Mobil Exploration and Producing North America, Inc. for the Ratherford Unit.

Please note that all other concerned parties will be furnished their copy of the approved document.

Sincerely,

ACTING Area Director

Enclosure

cc: Bureau of Land Management, Farmington District Office w/enc.
TNN, Director, Minerals Department w/enc.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

RECEIVED
BLM
93 JUL 27 AM 11:44
070 FARMINGTON, NM

DESIGNATION OF OPERATOR

Phillips Petroleum Company is, on the records of the Bureau of Indian Affairs, operator of the Ratherford Unit,

AREA OFFICE: Window Rock, Arizona
LEASE NO: Attached hereto as Exhibit "A"

and, pursuant to the terms of the Ratherford Unit Agreement, is resigning as Unit Operator effective July 1, 1993, and hereby designates

NAME: Mobil Exploration and Producing North America Inc., duly elected pursuant to the terms of the Ratherford Unit Agreement,

ADDRESS: P. O. Box 633, Midland, Texas 79702
Attn: G. D. Cox

as Operator and local agent, with full authority to act on behalf of the Ratherford Unit lessees in complying with the terms of all leases and regulations applicable thereto and on whom the authorized officer may serve written or oral instructions in securing compliance with the Operating Regulations (43 CFR 3160 and 25 CFR 211 and 212) with respect to (described acreage to which this designation is applicable):

Attached hereto as Exhibit "A"

Bond coverage under 25 CFR 211, 212 or 225 for lease activities conducted by the above named designated operator is under Bond Number 05202782 (attach copy). Evidence of bonding is required prior to the commencement of operations.

It is understood that this designation of operator does not relieve any lessee of responsibility for compliance with the terms of the leases and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the leases.

In case of default on the part of the designated operator, the lessees will make full and prompt compliance with all regulations, lease terms, stipulations, or orders of the Secretary of the Interior or his representative.

Attached is the appropriate documentation relevant to this document.

The designated operator agrees to promptly notify the authorized officer of any change in the operatorship of said Ratherford Unit.

Phillips Petroleum Company

June 17, 1993 By: M. B. Frank, J.
Attorney-in-Fact

Mobil Exploration and Producing
North America Inc.

June 11, 1993 By: B. D. Martiny
Attorney-in-Fact B.D. MARTINY

ACTING AREA DIRECTOR 7/9/93
APPROVED BY TITLE DATE

APPROVED PURSUANT, TO SECRETARIAL REDELEGATION ORDER 209 DM 8 AND 230 DM 3.

This form does not constitute an information collection as defined by 44 U.S.C. 3502 and therefore does not require OMB approval.

EXHIBIT "A"

ATTACHED TO AND MADE A PART OF DESIGNATION OF SUCCESSOR OPERATOR, RATHERFORD UNIT

EXHIBIT "C"

Revised as of September 29, 1992)

SCHEDULE OF TRACT PERCENTAGE PARTICIPATION

Tract Number	Description of Land	Serial Number and Effective Date of Lease	Tract Percentage Participation
1	S/2 Sec. 1, E/2 SE/4 Sec. 2, E/4 Sec. 11, and all of Sec. 12, T-41-S, R-23-E, S.L.M. San Juan County, Utah	14-20-603-246-A Oct. 5, 1953	11.0652565
2	SE/4 and W/2 SW/4 Sec. 5, the irregular SW/4 Sec. 6, and all of Sec. 7 and 8, T-41-S, R-24-E, San Juan County, Utah	14-20-603-368 Oct. 26, 1953	14.4159942
3	SW/4 of Sec. 4, T-41-S, R-24-E, San Juan County, Utah	14-20-603-5446 Sept. 1, 1959	.5763826
4	SE/4 Sec. 4, and NE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4035 March 3, 1958	1.2587779
5	SW/4 of Sec. 3, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5445 Sept. 3, 1959	.4667669
6	NW/4 of Sec. 9, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5045 Feb. 4, 1959	1.0187043
7	NW/4, W/2 NE/4, and SW/4 Sec. 10, SE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4043 Feb. 18, 1958	3.5097575
8	SW/4 Sec. 9, T-41-S, R-24-E, S.L.M. San Juan County, Utah	14-20-603-5046 Feb. 4, 1959	1.1141679
9	SE/4 Sec. 10 and S/2 SW/4 Sec. 11 T-41-S, R-24-E, San Juan County, Utah	14-20-603-4037 Feb. 14, 1958	2.6186804
10	All of Sec. 13, E/2 Sec. 14, and E/2 SE/4 and N/2 Sec. 24, T-41-S, R-23-E, S.L.M., San Juan County, Utah	14-20-603-247-A Oct. 5, 1953	10.3108861
11	Sections 17, 18, 19 and 20, T-41-S, R-24-E, San Juan County Utah	14-20-603-353 Oct. 27, 1953	27.3389265
12	Sections 15, 16, 21, and NW/4, and W/2 SW/4 Sec. 22, T-41-S, R-24-E, San Juan County, Utah	14-20-603-355 Oct. 27, 1953	14.2819339
13	W/2 Section 14, T-41-S, R-24-E, San Juan County, Utah	14-20-603-370 Oct. 26,1953	1.8500847
14	N/2 and SE/4, and E/2 SW/4 Sec. 29, NE/4 and E/2 SE/4 and E/2 W/2 irregular Sec. 30, and E/2 NE/4 Sec. 32, T-41-S, R-24-E, San Juan County, Utah	14-20-603-407 Dec. 10, 1953	6.9924969
15	NW/4 Sec. 28, T-41-S, R24-E San Juan County, Utah	14-20-603-409 Dec. 10, 1953	.9416393
16	SE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6504 July 11, 1961	.5750254
17	NE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6505 July 11, 1961	.5449292
18	NW/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6506 July 11, 1961	.5482788
19	NE/4 Sec. 4, T-41-S, R24-E San Juan County, Utah	14-20-0603-7171 June 11, 1962	.4720628
20	E/2 NW/4 Sec. 4, T-41-S, R-24-E San Juan County, Utah	14-20-0603-7172 June 11, 1962	.0992482
100% Indian Lands		TOTAL 12,909.74	100.0000000

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[] Well File _____

(Location) Sec___Twp___Rng___

(API No.) _____

[] Suspense

(Return Date) _____

(To - Initials) _____

XXX Other

OPERATOR CHANGE

1. Date of Phone Call: 10-6-93 Time: 9:30

2. DOGM Employee (name) L. CORDOVA (Initiated Call XXX)

Talked to:

Name GLEN COX (Initiated Call [ ]) - Phone No. (915)688-2114

of (Company/Organization) MOBIL

3. Topic of Conversation: OPERATOR CHANGE FROM PHILLIPS TO MOBIL "RATHERFORD UNIT".

(NEED TO CONFIRM HOW OPERATOR WANTS THE WELLS SET UP - MEPNA AS PER BIA APPROVAL OR MOBIL OIL CORPORATION AS PER SUNDRY DATED 9-8-93?)

4. Highlights of Conversation:

MR. COX CONFIRMED THAT THE WELLS SHOULD BE SET UNDER ACCOUNT N7370/MEPNA AS PER BIA APPROVAL, ALSO CONFIRMED THAT PRODUCTION & DISPOSITION REPORTS WILL NOW BE HANDLED OUT OF THEIR CORTEZ OFFICE RATHER THAN DALLAS.

MEPNA-

PO DRAWER G

CORTEZ, CO 81321

(303)565-2212

*ADDRESS CHANGE AFFECTS ALL WELLS CURRENTLY OPERATORED BY MEPNA, CURRENTLY REPORTED OUT OF DALLAS (MCELMO CREEK).

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:
1-LEC/7-SJ
2-DTS/8-FILE
3-VLC
4-RJF
5-LEC
6-PL

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XX Change of Operator (well sold)
☐ Designation of Operator
☐ Designation of Agent
☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 7-1-93)

TO (new operator) M E P N A
(address) PO DRAWER G
CORTEZ, CO 81321
GLEN COX (915)688-2114
phone (303) 565-2212
account no. N7370

FROM (former operator) PHILLIPS PETROLEUM COMPANY
(address) 5525 HWY 64 NBU 3004
FARMINGTON, NM 87401
PAT KONKEL
phone (505) 599-3452
account no. N0772(A)

Well(s) (attach additional page if needed): *RATHERFORD UNIT (NAVAJO)

Name	API	Entity	Sec	Twp	Rng	Lease Type
SEE ATTACHED	43-037-15753					

OPERATOR CHANGE DOCUMENTATION

Lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Reg. 8-20-93) (6/93 Prod. Rpt. 8-16-93)

Lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Reg. 8-31-93) (Rec'd 9-14-93)

N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.

Lec 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 6. Cardex file has been updated for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 7. Well file labels have been updated for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (10-6-93)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

PERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

Lec/N/A 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

__ 2. A copy of this form has been placed in the new and former operators' bond files.

__ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 11-10-93

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases**.

FILMING

✓ 1. All attachments to this form have been microfilmed. Date: 11-17 1993.

FILING

Lec 1. Copies of all attachments to this form have been filed in each well file.

Lec 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

931006 BIA/Bfm Approved 7-9-93.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: Navajo
7. If Unit or CA, Agreement Designation: Ratherford
8. Well Name and No.: RU 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or Exploratory Area: Greater Aneth
11. County or Parish, State: San Juan, Ut.

1. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other
2. Name of Operator: MEPUS for MPT&NM and MEPNA* (915) 688-2114
3. Address and Telephone No.: P.O. Box 633, Midland, Tx. 79702 Attn: Glen Cox
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: SWSW 21-41s-24e
BHL: N/A

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☑ Notice of Intent	☐ Abandonment	☐ Change of Plans
	☐ Recompletion	☐ New Construction
☐ Subsequent Report	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
☐ Final Abandonment Notice	☐ Altering Casing	☐ Conversion to Injection
	☑ Other Pipeline	☐ Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

*Mobil Exploration & Producing U. S. Inc. as agent for Mobil Producing Texas & New Mexico Inc. and Mobil Exploration & Producing North America Inc.

Will bury water injection pipeline ≈30" deep, except for surface rim crossing. (Application to convert well will be filed separately.) Pipeline will be ≈1200' long and run west from well to existing injection pipeline just east of 20-44. All in unit. All on Navajo Tribal Trust. All sites avoided.

Pipeline will be ≈3-1/2" OD coiled steel tubing. Wall thickness is 0.190". Pipe rated to API5LX42. Maximum operating pressure will be ≈500 psi. Hydrotested to ≈5800 psi. Burst pressure is ≈7200 psi. Tubing will be unreeled from spool mounted on bulldozer.

cc: BIA, BLM, Cox, UDOGM

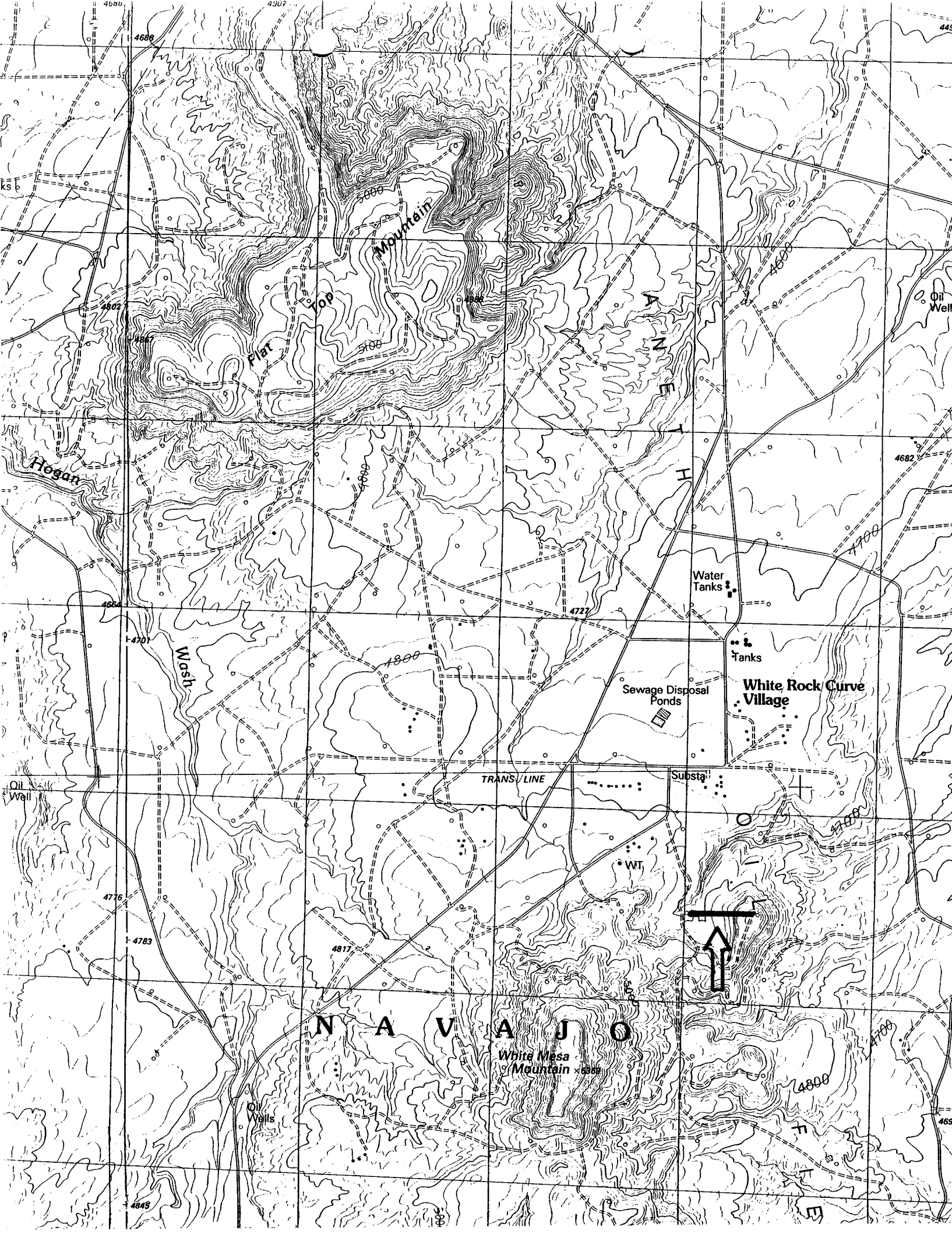
14. I hereby certify that the foregoing is true and correct
Signed: Brian Wood Title: Consultant Date: 6-20-94

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side



Flat Top Mountain
Hogan Wash
Water Tanks
Tanks
Sewage Disposal Ponds
White Rock Curve Village
TRANS LINE
Substa
WT
Oil Well
Oil Wells
N A V A J O
White Mesa Mountain
4688
4907
4802
4867
4664
4701
4727
4682
4776
4783
4817
4845
4600
4700
4800
5000
5100

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JAN - 9 1995
DIV OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
21-14

2. Name of Operator Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

9. API Well No.
43-037-15753

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL
SEC. 21, T41S, R24E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
	[ ] Recompletion	[ ] New Construction
[ ] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other SIDETRACK	[ ] Dispose Water

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

13. 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.)*

SEE ATTACHMENT

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 1/10/95
BY: Matthews

14. I hereby certify that the foregoing is true and correct
Signed Shirley Todd Title ENVIR. & REG. TECHNICIAN Date 1-6-95

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

Generic Ratherford Unit
Horizontal Drilling Procedure

The objective of this procedure is to prepare this wellbore for sidetracking, sidetrack the subject well and drill a short radius horizontal well with a 1000' lateral.

1. Prepare location and dig working pit.

2. MIRU DDPU (daylight workover rig), reverse unit and H2S equipment.

3. TOH and LD rods.

4. ND wellhead, release TAC, and NU BOPs.

5. TIH with bit and casing scraper to PBTD. TOH with bit and scraper.

6. Attempt to load hole and establish an injection rate (if the injection pressure is > 500 psi, a packer should be run to establish an injection rate).

7. MIRU wireline truck. Run gauge ring and junk basket to PBTD. Run a gyro survey from PBTD to surface. Run and set a cement retainer ±100' above the top perforation. RD wireline truck.

8. TIH with star guide and stop ±30' above the cement retainer. Circulate until well is static and free of oil and gas. Sting into cement retainer and establish injection rate. Pressure annulus to 500 psi. Squeeze cement the existing Desert Creek perforations. Pull out of retainer leaving 1 bbl of cement on top of the retainer and reverse out. TOH with star guide laying down tubing.

9. TIH with bit and drill collars picking up 2 7/8" 10.40 ppf E-75 AOH workstring. Drill cement retainer and cement to the original PBTD. Circulate hole clean and them mud-up system until a yield point of 40-50 is obtained. TOH with bit.

10. TIH with section mill dressed with cutter arms for 5 1/2" or 7" casing. Mill a 30' section in the casing just below the Gothic shale. Circulate the hole clean and TOH with section mill.

11. TIH with bit and clean out to TD. Circulate hole clean and TOH with bit.

12. TIH with 10 jts 2 3/8" tubing on 2 7/8" DP to TD. Circulate the well until static and free of oil and gas. Spot a balanced cement kick-off plug. TOH with workstring. WOC a minimum of 12 hours.

13. TIH and tag cement plug and re-spot plug if the top is to low. TOH and LD workstring . ND BOPs and NU wellhead. RDMO daylight workover rig.

14. MIRU 24 hour DDPU with drilling package. TIH with MT bit, DCs, and 2 7/8", 10.4 ppf, AOH drillpipe.

15. Dress off cement plug to the kick off point. Treat water and mud up. POOH.

16. PU curve drilling assembly and TIH on 2 7/8" DP to PBTD.

17. RU power swivel and wireline. Latch into gyro tool and orient BHA.

18. Sidetrack wellbore using gyro orientation. Switch to Magnetic steering tool when free of magnetic interference from casing.

19. Drill curve section using steering tool for orientation. POOH and LD curve drilling motor.

20. PU lateral drilling motor and new bit.

21. TIH with lateral drilling assembly. Steer assembly as necessary with steering tool to reach target. Make bit trips as necessary. Circulate wellbore clean and POOH.

22. Complete well as per operations Engineering.

Exhibit 2GX

PRODUCER
9-13-93
TVE

Rutherford Unit 21-14

Present Setting

KB: 4978' Z: 11.5' AGL GL: 4966.5'

13-3/8", 27.1#/ft K-55
Cmtd w/ 175 sx cmt.
Circ to surface.

168'

8-5/8", 24#/ft J-55
Cmtd w/ 581 sx Cl B.
Circ to surface.

1680'

Csg leak 2826-2907'
Sqzd w/ 21 bbls cmt.

Csg leak 2888-2910'
& 3900-4033'
Sqzd w/ 91 sx cmt.

Tubing Detail:

200 jts 2-7/8" 6.5# tbg
2-7/8" x 5.5" TAC
6 jts 2-7/8" 6.5# tbg
2.5" SN
2-7/8" BPPS

Rod Detail:

1.5" x 22' PR w/ liner
7/8" pony rods as needed
(57) 1" steel rods
(67) 7/8" steel rods
(107) 3/4" steel rods
2.5" x 1.5" x 18' pump

TAC @ 5715'

Perfs:

4 SPF 5735-47'
4 SPF 5752-80'
4 SPF 5882-90'
4 SPF 5898-5904'

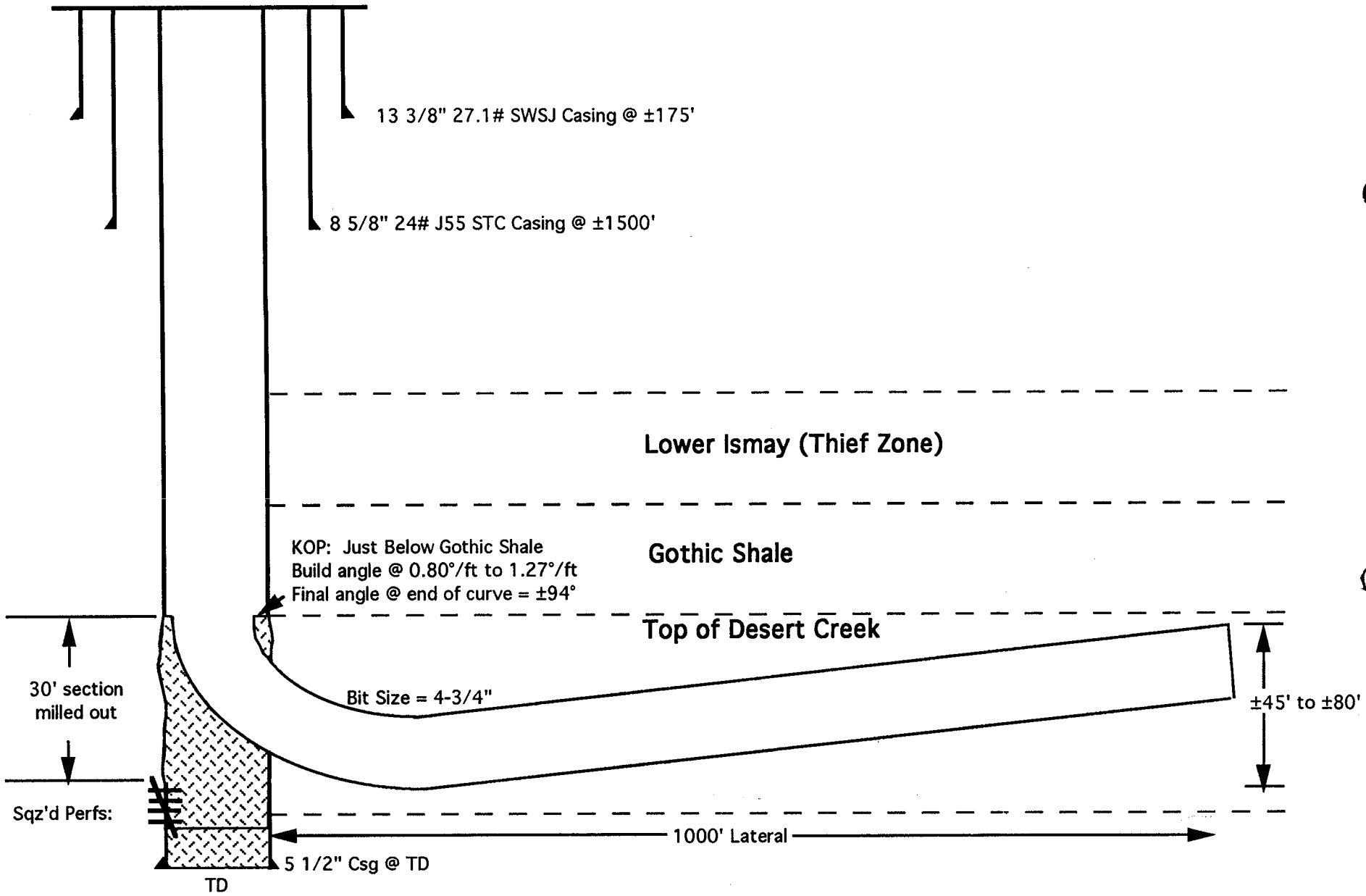
SN @ 5911'

PBTD: 5921'

5.5", 14#/ft J-55
Cmtd w/ 550 cu ft cmt.

TD: 5952'

GENERIC HORIZONTAL RATHERFORD UNIT PRODUCER WITH 5 1/2" CASING



Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR - 6 1995
DIV OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.: 14-20-603-355

6. If Indian, Allottee or Tribe Name: Navajo

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation: Ratherford

1. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.: RU 21-14

2. Name of Operator: MEPUS for MPT&NM and MEPNA* (915) 688-2114

9. API Well No.: 43-037-15753

3. Address and Telephone No.: P.O. Box 633, Midland, Tx. 79702 Attn: Glen Cox

10. Field and Pool, or Exploratory Area: Greater Aneth

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: SWSW 21-41s-24e
BHL: N/A

11. County or Parish, State: San Juan, Ut.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☑ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☑ Other Pipeline	☐ Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

*Mobil Exploration & Producing U. S. Inc. as agent for Mobil Producing Texas & New Mexico Inc. and Mobil Exploration & Producing North America Inc.

Will bury ≈1,784' long injection pipeline ≈30" deep along road to east of RU 20-44. This Sundry replaces previous Sundry dated 6-20-94 for same project. Pipe has been rerouted so it can be buried. All in unit. All on Navajo Tribal Trust. All sites avoided.

Pipeline will be ≈3-1/2" OD coiled steel tubing. Wall thickness is 0.190". Pipe rated to API5LX42. Maximum operating pressure will be ≈500 psi. Hydrotested to ≈5800 psi. Burst pressure is ≈7200 psi. Tubing will be unreeled from spool mounted on bulldozer.

cc: BIA, BLM, Cox, Pena, UDOGM

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

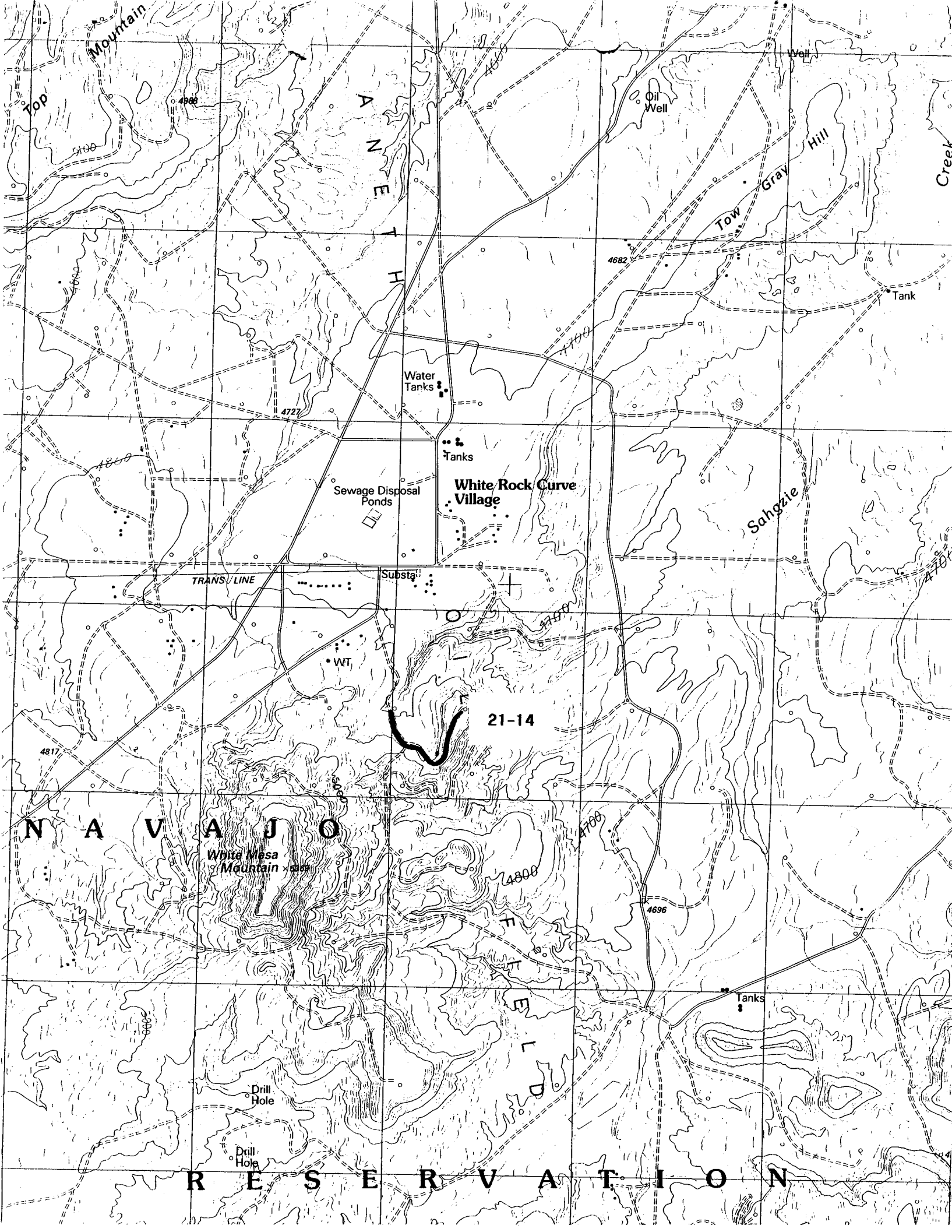
Signed: Brian Wood Title: Consultant (505) 466-8120 Date: 3-4-95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side



Top Mountain
4988
5100
ANETH
Oil Well
Well
Tow Gray Hill
Creek
4682
Tank
4700
Water Tanks
4727
Tanks
White Rock Curve Village
Sewage Disposal Ponds
Sahgzie
TRANS LINE
Substa
WT
21-14
4817
NAVAJO
White Mesa Mountain
4800
4696
FIELD
Tanks
Drill Hole
Drill Hole
RESERVATION

Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE (See other instructions on reverse side)

RECEIVED
MAY 26 1995
DIV. OF OIL, GAS & MINING

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-603-355

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

8. FARM OR LEASE NAME, WELL NO.: RATHERFORD 21-14

9. API WELL NO.: 43-037-157553

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SEC.21, T41S, R24E

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other SIDETRACK

2. NAME OF OPERATOR: Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing TX & NM Inc.

3. ADDRESS AND TELEPHONE NO.: P.O. Box 633, Midland, TX 79702 (915) 688-2585

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 660' FSL, 460' FWL
At top prod. interval reported below: BHL 1601'FSL, 231'FEL, Sec 20
At total depth: BHL 941 N, 697 W from Surface location S20, T41S, R24E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
NA	NA	SAN JUAN	UT

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
NA	4-5-95	5-9-95	GL-4966.5	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
TVD 5952	TMD 6970		→		

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 5910 - 6970 OH DESERT CREEK

25. WAS DIRECTIONAL SURVEY MADE: YES

26. TYPE ELECTRIC AND OTHER LOGS RUN:

27. WAS WELL CORED: NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8	27	168	NA	175 SX SURF	NONE
8 5/8	24	1680	NA	581 SX SURF	NONE
5 1/2	14	5952	NA	550 CU FT EST TOC 2776'	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8	SN @ 5625	

31. PERFORATION RECORD (Interval, size and number): 5910 - 6970 OH

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5730 - 5755	CUT WINDOW
5600	SET CICR
5603	KOP
5730 - 5735	SQZ W/75SX CL G LEAD CMT

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)
		PRODUCING

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
5-13-95	24		→	154	70	34	454

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
50	0	→				

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.):

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: # 32 CONTINUED ON BACK

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Shirley Robertson TITLE ENV. & REG. TECHNICIAN DATE 5-22-95

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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 jurisdicton.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			5730-5735 (15.6 PPG, 1.21 Y, 16.2 BBL) 150 X CL G TAIL CMT (17.0 PPG, 1.03 Y, 27.5 BBL) 5910-6970 ACDZ W/322 BBLS 15% HCL

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE: 1992-774-672

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAY 26 1995
DIV. OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
RATHERFORD 21-14

2. Name of Operator Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

9. API Well No.
43-037-15753

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL
SEC. 21, T41S, R24E
BHL 942, FNL 697 FWL from surf. location

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other sidetrack	[ ] Dispose Water

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

13. 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.)*

03-07-95 MIRU TOOH W/TBG
03-08-95 RIH W/BIT AND CSG SCRAPER TO PBD AT 5921'.
03-10-95 CUT WINDOW FROM 5730-5755 (25').
03-11-95 SET CICR AT 5600'.
03-14-95 SPOT 75 SX CL G LEAD CMT (15.6 PPPG, 1.21Y, 16.2 BBL. 150SX CL G TAIL CMT (17.0PPG 1.03 Y 27.5 BBL. TAG CMT AT 5441'. DRILL OUT CMT TO 5493'.
03-15-95 DRILL CMT FROM 5493-5600. TOP OF RET. DRILL OUT CMT RET.
03-16-95 DRILL CMT FROM 5650-5735.
03-30-95 DRILL 5735-5739, 5739-5827.
03-31-95 DRILL FROM 5829-5882.
04-01-95 DRILL 5882-6171.
04-02-95 DRILL 6171-6246.
04-03-95 DRILL 6246-6486.
04-04-95 DRILL 6486-6660, 6660-6793.
04-05-95 DRILL 6793-6970' TD.
04-14-95 TAG 6970'. ACDZ W/322 BBLS 15% HCL ACID. ACDZ FROM 6970-6296, 6184-6010, 6010-5910. KOP @ 5603'
05-08-95 RIH w/TBG SET SN @ 5625' TAC @ 5563' RDMO.

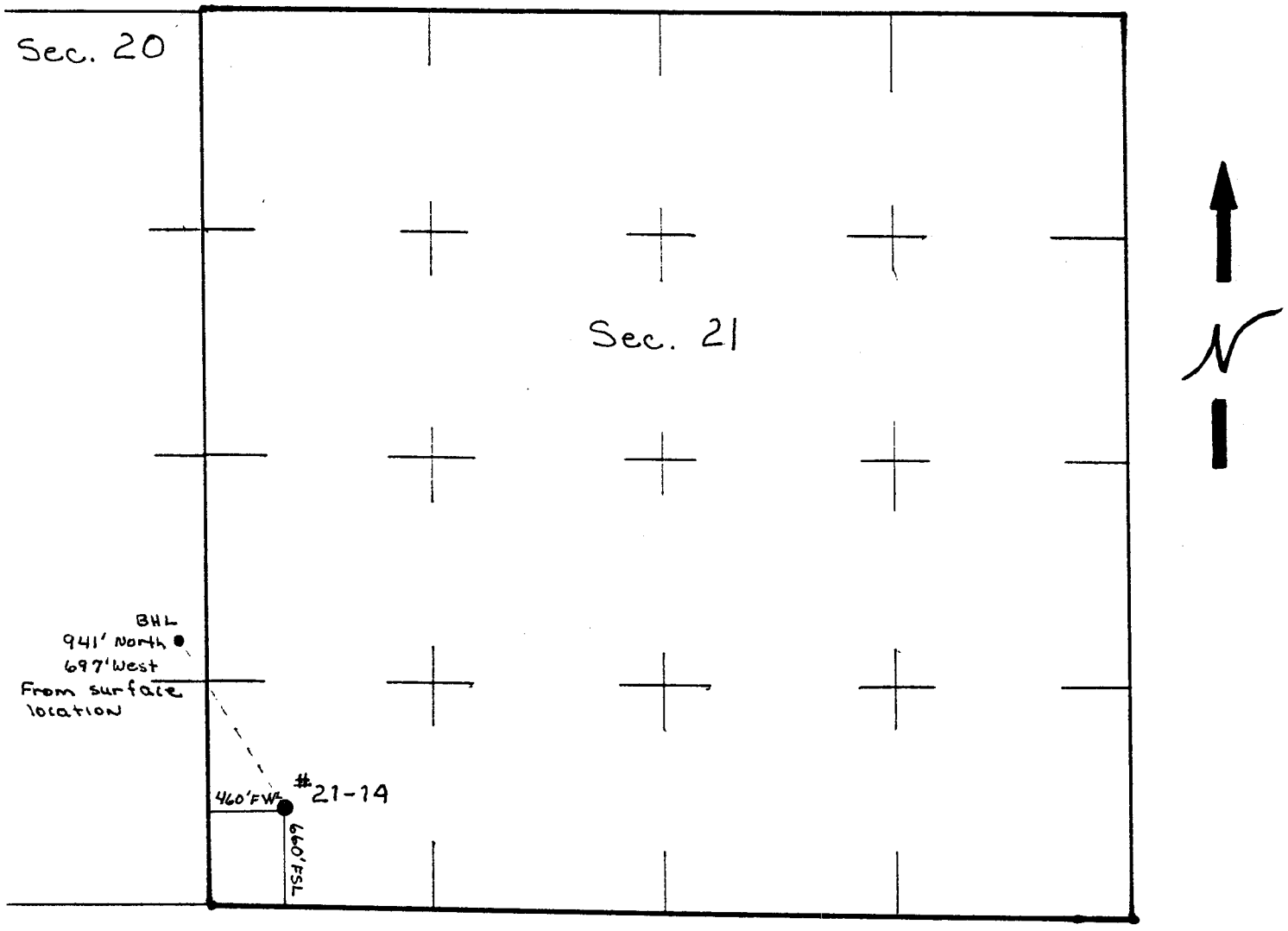
14. I hereby certify that the foregoing is true and correct
Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 5-23-95

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

MOBIL EXPLORATION & PRODUCING U.S. INC.
as Agent for MEPNA & Mobil Oil Corp.



RATHERFORD UNIT #21-14
Sec. 21, T41S, R24E
San Juan County, UT
BHL from Surface Location 941' N, 697' W
Sec. 20, T41S, R24E

Scale 1" = 1,000'

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR:	Mobil Exploration and Production	DATE:	03/30
WELL:	Ratherford Unit No. 21-14	TIME:	09:51
JOB NO:	253056	Information provided by:	
FIELD:	Greater Aneth		
LOCATION:	San Juan County, Utah		

DIP1	0.06 °	0.10 °/100'	TERM I1 =	93.30
8' into B	5,792.0		TERM I2 =	93.30
@ VS	0.0			
DIP2	0.06 °	0.10 °/100'	PROPOSED DIRECTION:	315.00 °(TRUE)
8' into B	5,792.0			
@ VS	0.0			

KOP @ 5735'

NO.	MD	INC.	AZ	DLS/ 100	inc chg °/100 ft	5 survey moving avg delta inc	BUR REQ'D	TVD	TOP 1B	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W
tie in	5,715	0.5	137.8	2.04			73.6	5,714.83	5,784	69.2	-15.47	-12.0	-19.42	2.46
1	5,737	3.0	321.7	15.86	11.41		98.3	5,736.8	5,784	47.2	-15.0	-12	-19.0	2.2
2	5,739	4.4	321.4	70.01	70.00	70.0	99.4	5,738.8	5,784	45.2	-14.9	-12	-18.9	2.1
3	5,741	6.5	321.3	105.00	105.00	87.5	99.2	5,740.8	5,784	43.2	-14.7	-12	-18.8	2.0
4	5,743	8.8	320.3	115.19	115.00	96.7	98.5	5,742.8	5,784	41.2	-14.4	-12	-18.6	1.8
5	5,745	10.9	318.9	105.67	105.00	98.8	98.3	5,744.8	5,784	39.3	-14.1	-12	-18.3	1.6
6	5,747	12.6	316.7	87.89	85.00	96.0	98.8	5,746.7	5,784	37.3	-13.7	-12	-18.0	1.3
7	5,749	14.4	310.7	113.93	90.00	100.0	99.2	5,748.7	5,784	35.4	-13.2	-12	-17.7	1.0
8	5,751	16.3	309.0	97.62	95.00	98.0	99.4	5,750.6	5,784	33.4	-12.7	-12	-17.4	0.6
9	5,753	18.1	309.0	90.00	90.00	93.0	99.9	5,752.5	5,784	31.5	-12.1	-12	-17.0	0.1
10	5,755	19.8	309.0	85.00	85.00	89.0	100.6	5,754.4	5,784	29.6	-11.4	-12	-16.6	-0.4
11	5,757	22.0	309.0	110.00	110.00	94.0	100.1	5,756.3	5,784	27.7	-10.7	-12	-16.1	-1.0
12	5,759	24.3	309.0	115.00	115.00	99.0	99.3	5,758.1	5,784	25.9	-9.9	-12	-15.6	-1.6
13	5,761	26.2	309.0	95.00	95.00	99.0	99.6	5,759.9	5,784	24.1	-9.1	-12	-15.1	-2.2
14	5,763	28.1	309.0	95.00	95.00	100.0	99.8	5,761.7	5,784	22.3	-8.2	-12	-14.5	-2.9
15	5,765	29.7	309.0	80.00	80.00	99.0	101.1	5,763.4	5,784	20.6	-7.2	-12	-13.9	-3.7
16	5,767	31.5	309.0	90.00	90.00	95.0	101.8	5,765.2	5,784	18.8	-6.2	-13	-13.3	-4.5
17	5,769	33.2	309.2	85.17	85.00	89.0	102.9	5,766.9	5,784	17.2	-5.2	-13	-12.6	-5.3
18	5,771	34.9	309.1	85.05	85.00	87.0	104.2	5,768.5	5,784	15.5	-4.0	-13	-11.9	-6.2
19	5,773	36.6	309.1	85.00	85.00	85.0	105.6	5,770.1	5,784	13.9	-2.9	-13	-11.2	-7.1
20	5,775	39.1	309.0	125.04	125.00	94.0	104.1	5,771.7	5,784	12.3	-1.7	-13	-10.4	-8.0
21	5,777	40.9	309.0	90.00	90.00	94.0	105.2	5,773.2	5,784	10.8	-0.4	-13	-9.6	-9.0
22	5,779	43.1	309.0	110.00	110.00	99.0	104.8	5,774.7	5,784	9.3	1.0	-13	-8.7	-10.1
23	5,781	46.4	309.5	165.94	165.00	115.0	99.4	5,776.1	5,784	7.8	2.4	-13	-7.8	-11.2
24	5,783	48.8	309.7	120.23	120.00	122.0	97.5	5,777.5	5,784	6.5	3.8	-14	-6.9	-12.3
25	5,785	51.4	309.9	130.23	130.00	123.0	94.3	5,778.8	5,784	5.2	5.4	-14	-5.9	-13.5
26	5,787	53.6	310.2	110.64	110.00	127.0	92.7	5,780.0	5,784	4.0	6.9	-14	-4.9	-14.7
27	5,789	56.1	310.3	125.07	125.00	130.0	89.3	5,781.1	5,784	2.8	8.6	-14	-3.8	-16.0
28	5,791	58.3	310.4	110.08	110.00	119.0	87.0	5,782.2	5,784	1.8	10.2	-14	-2.8	-17.2
29	5,793	60.5	310.6	110.34	110.00	117.0	84.3	5,783.3	5,784	0.7	12.0	-14	-1.6	-18.5
30	5,795	63.0	310.9	125.70	125.00	116.0	79.3	5,784.2	5,784	-0.2	13.7	-14	-0.5	-19.9
31	5,797	65.3	311.1	115.35	115.00	117.0	74.8	5,785.1	5,784	-1.1	15.5	-15	0.7	-21.2
32	5,799	67.6	311.4	115.82	115.00	115.0	69.6	5,785.9	5,784	-1.9	17.3	-15	1.9	-22.6
33	5,801	69.8	311.7	110.88	110.00	115.0	64.1	5,786.6	5,784	-2.6	19.2	-15	3.1	-24.0
34	5,803	71.9	312.0	105.95	105.00	114.0	58.4	5,787.3	5,784	-3.3	21.1	-15	4.4	-25.4
35	5,805	74.6	312.6	138.02	135.00	116.0	47.8	5,787.8	5,784	-3.9	23.0	-15	5.7	-26.8
BIT	5,827	96.5	322.0	108.17	99.55		11.1	5,789.5	5,784	-5.6	44.8	-14	21.7	-41.6

AZIMUTHS OUTLINED ARE "PLUGGED"

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR:	Mobil Exploration and Production	DATE:	04/03
WELL:	Ratherford Unit No. 21-14	TIME:	04:43
JOB NO:	253056	Information provided by:	
FIELD:	Greater Aneth		
LOCATION:	San Juan County, Utah		

DIP1	0.03 °	0.05 °/100'	TERM I1 =	93.30
TOP OF A	5,733.0		TERM I2 =	93.30
@ VS	0.0			
DIP2	0.06 °	0.10 °/100'	PROPOSED	
TOP OF B	5,784.0		DIRECTION:	315.00 °(TRUE)
@ VS	0.0			

NO.	MD	INC.	AZ	TVD	TOP OF DC 1B	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W	DLS/ 100
35	5,805	74.6	312.6	5,787.8	5,784.0	-3.9	23.0	-15	5.7	-26.8	103.74
36	5,810	82.1	320.4	5,788.8	5,784.0	-4.9	27.9	-15	9.2	-30.2	214.45
37	5,827	96.4	326.8	5,789.0	5,784.0	-5.1	44.6	-12	22.9	-40.2	92.17
38	5,840	97.6	326.2	5,787.5	5,783.9	-3.5	57.3	-10	33.6	-47.4	10.03
39	5,850	97.0	326.8	5,786.2	5,783.9	-2.3	67.0	-8	41.9	-52.8	8.45
40	5,860	97.2	327.2	5,785.0	5,783.9	-1.0	76.7	-6	50.2	-58.2	4.44
41	5,870	97.9	327.3	5,783.6	5,783.9	0.3	86.4	-4	58.6	-63.6	7.07
42	5,880	97.7	327.4	5,782.3	5,783.9	1.6	96.1	-1	66.9	-69.0	2.23
43	5,890	97.8	327.7	5,780.9	5,783.9	3.0	105.7	1	75.3	-74.3	3.14
44	5,900	98.0	327.8	5,779.6	5,783.9	4.3	115.4	3	83.7	-79.6	2.23
45	5,910	98.3	327.6	5,778.1	5,783.9	5.7	125.1	5	92.0	-84.8	3.59
46	5,920	98.4	327.5	5,776.7	5,783.9	7.2	134.7	7	100.4	-90.2	1.41
47	5,930	98.4	327.2	5,775.2	5,783.8	8.6	144.4	9	108.7	-95.5	2.97
48	5,940	98.9	327.4	5,773.7	5,783.8	10.1	154.0	11	117.0	-100.8	5.38
49	5,950	99.4	327.8	5,772.1	5,783.8	11.7	163.7	14	125.4	-106.1	6.37
50	5,960	99.2	327.3	5,770.5	5,783.8	13.3	173.3	16	133.7	-111.4	5.32
51	5,970	98.7	326.5	5,769.0	5,783.8	14.8	183.0	18	142.0	-116.8	9.35
52	5,980	97.8	325.0	5,767.5	5,783.8	16.3	192.7	20	150.1	-122.4	17.36
53	5,990	97.4	323.6	5,766.2	5,783.8	17.6	202.5	21	158.2	-128.2	14.44
54	6,000	99.4	324.2	5,764.7	5,783.8	19.0	212.3	23	166.2	-134.0	20.86
55	6,010	100.5	325.3	5,763.0	5,783.8	20.8	222.0	24	174.2	-139.7	15.44
56	6,020	99.4	325.7	5,761.3	5,783.8	22.5	231.6	26	182.3	-145.3	11.68
57	6,030	97.4	325.8	5,759.8	5,783.7	23.9	241.4	28	190.5	-150.8	20.02
58	6,040	95.8	326.2	5,758.7	5,783.7	25.1	251.1	30	198.7	-156.4	16.49
59	6,050	95.0	327.0	5,757.7	5,783.7	26.0	260.9	32	207.1	-161.9	11.29
60	6,060	94.0	328.0	5,757.0	5,783.7	26.8	270.6	34	215.5	-167.2	14.12
61	6,070	91.5	327.8	5,756.5	5,783.7	27.2	280.3	36	223.9	-172.5	25.08
62	6,080	89.4	327.5	5,756.4	5,783.7	27.3	290.1	39	232.4	-177.9	21.21
63	6,090	88.2	328.2	5,756.6	5,783.7	27.1	299.8	41	240.8	-183.2	13.89
64	6,100	86.6	329.7	5,757.1	5,783.7	26.6	309.5	43	249.4	-188.4	21.92
65	6,110	84.8	331.3	5,757.8	5,783.7	25.9	319.1	46	258.1	-193.3	24.05
66	6,120	82.5	332.4	5,759.0	5,783.7	24.7	328.7	49	266.8	-198.0	24.51
67	6,130	80.1	333.5	5,760.5	5,783.6	23.2	338.1	52	275.6	-202.5	26.35
68	6,140	77.6	334.2	5,762.4	5,783.6	21.2	347.4	55	284.4	-206.8	25.93
69	6,150	75.3	334.9	5,764.7	5,783.6	18.9	356.5	58	293.2	-211.0	23.99
70	6,160	73.2	335.9	5,767.5	5,783.6	16.2	365.5	61	302.0	-215.0	23.10
71	6,170	72.7	336.7	5,770.4	5,783.6	13.2	374.4	65	310.7	-218.8	9.14
72	6,180	77.9	339.6	5,772.9	5,783.6	10.7	383.3	69	319.7	-222.4	59.08
73	6,190	81.9	340.7	5,774.7	5,783.6	8.9	392.2	73	328.9	-225.8	41.44
74	6,200	82.9	339.7	5,776.0	5,783.6	7.6	401.2	77	338.3	-229.1	14.08
75	6,210	83.8	338.3	5,777.2	5,783.6	6.4	410.3	81	347.5	-232.7	16.56
76	6,220	87.0	335.4	5,778.0	5,783.6	5.6	419.5	85	356.7	-236.6	43.12
77	6,230	89.5	333.3	5,778.3	5,783.6	5.3	429.0	88	365.7	-240.9	32.64
78	6,240	90.7	332.9	5,778.3	5,783.5	5.3	438.5	91	374.6	-245.5	12.65
79	6,250	91.6	333.4	5,778.1	5,783.5	5.5	448.0	94	383.5	-250.0	10.30

OUTLINED SURVEYS TAKEN W/MWD

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR:	Mobil Exploration and Production	DATE:	04/03
WELL:	Ratherford Unit No. 21-14	TIME:	04:43
JOB NO:	253056	Information provided by:	
FIELD:	Greater Aneth		
LOCATION:	San Juan County, Utah		

DIP1	0.03 °	0.05 '/100'	TERM I1 =	93.30
TOP OF A	5,733.0		TERM I2 =	93.30
@ VS	0 0			
DIP2	0.06 °	0.10 '/100'	PROPOSED	
TOP OF B	5,784.0		DIRECTION:	315.00 °(TRUE)
@ VS	0.0			

NO.	MD	INC.	AZ	TVD	TOP OF DC 1B	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W	DLS/ 100
80	6,260	93.3	332.9	5,777.6	5,783.5	5.9	457.5	98	392.5	-254.5	17.72
81	6,270	94.3	332.8	5,777.0	5,783.5	6.6	467.0	101	401.3	-259.0	10.05
82	6,280	95.4	332.7	5,776.1	5,783.5	7.4	476.4	104	410.2	-263.6	11.05
83	6,290	96.4	333.0	5,775.1	5,783.5	8.4	485.9	107	419.0	-268.1	10.44
84	6,300	97.4	333.2	5,773.9	5,783.5	9.6	495.3	110	427.9	-272.6	10.20
85	6,310	98.4	333.5	5,772.5	5,783.5	11.0	504.7	113	436.8	-277.1	10.43
86	6,320	98.5	333.7	5,771.0	5,783.5	12.4	514.1	116	445.6	-281.5	2.22
87	6,330	96.0	332.7	5,769.8	5,783.5	13.7	523.5	119	454.5	-285.9	26.90
88	6,340	93.0	329.5	5,769.0	5,783.4	14.4	533.1	122	463.2	-290.8	43.79
89	6,350	91.1	327.9	5,768.6	5,783.4	14.8	542.8	124	471.7	-296.0	24.83
90	6,360	90.8	327.6	5,768.5	5,783.4	15.0	552.6	127	480.2	-301.3	4.24
91	6,370	90.7	327.2	5,768.3	5,783.4	15.1	562.4	129	488.6	-306.7	4.12
bit	6,420	90.5	325.1	5,767.8	5,783.4	15.5	611.4	138	530.1	-334.5	4.12

OUTLINED SURVEYS TAKEN W/MWD

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR:	Mobil Exploration and Production	DATE.	04/04
WELL:	Ratherford Unit No. 21-14	TIME:	04:59
JOB NO:	253056	Information provided by:	
FIELD:	Greater Aneth		
LOCATION:	San Juan County, Utah		

DIP1	0.03 °	0.05 '/100'	TERM I1 =	93.30
TOP OF A	5,733.0		TERM I2 =	93.30
@ VS	0.0			
DIP2	0.06 °	0.10 '/100'	PROPOSED	
TOP OF B	5,784.0		DIRECTION:	315.00 °(TRUE)
@ VS	0.0			

NO.	MD	INC.	AZ	TVD	TOP OF DC 1B	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W	DLS/ 100
92	6,380	90.2	326.8	5,768.3	5,783.4	15.1	572.1	131	497.0	-312.1	6.40
93	6,390	89.1	326.5	5,768.3	5,783.4	15.1	581.9	133	505.3	-317.6	11.40
94	6,400	88.5	326.3	5,768.5	5,783.4	14.9	591.7	135	513.7	-323.2	6.32
95	6,410	88.7	326.2	5,768.8	5,783.4	14.6	601.5	137	522.0	-328.7	2.24
96	6,420	89.7	325.4	5,768.9	5,783.4	14.4	611.4	139	530.3	-334.3	12.81
97	6,430	91.1	324.2	5,768.8	5,783.4	14.5	621.2	140	538.4	-340.1	18.44
98	6,440	91.9	323.1	5,768.6	5,783.3	14.8	631.1	142	546.5	-346.0	13.60
99	6,450	92.4	322.9	5,768.2	5,783.3	15.1	641.0	143	554.5	-352.0	5.38
100	6,460	93.2	323.0	5,767.7	5,783.3	15.6	650.9	145	562.4	-358.0	8.06
101	6,470	93.6	323.1	5,767.1	5,783.3	16.2	660.8	146	570.4	-364.0	4.12
102	6,480	94.2	323.1	5,766.4	5,783.3	16.9	670.6	147	578.4	-370.0	6.00
103	6,490	94.3	323.0	5,765.7	5,783.3	17.6	680.5	149	586.4	-376.0	1.41
104	6,500	93.9	322.0	5,765.0	5,783.3	18.3	690.4	150	594.3	-382.1	10.75
105	6,510	93.5	322.7	5,764.3	5,783.3	18.9	700.3	151	602.2	-388.2	8.05
106	6,520	93.4	322.6	5,763.7	5,783.3	19.5	710.2	153	610.1	-394.3	1.41
107	6,530	93.3	322.4	5,763.2	5,783.3	20.1	720.1	154	618.0	-400.3	2.23
108	6,540	92.9	322.2	5,762.6	5,783.2	20.6	730.0	155	625.9	-406.4	4.47
109	6,550	92.2	321.6	5,762.2	5,783.2	21.1	739.9	156	633.8	-412.6	9.22
110	6,560	91 2	321.1	5,761.9	5,783.2	21.3	749.8	158	641.6	-418.8	11.18
111	6,570	90.8	320.8	5,761.7	5,783.2	21.5	759.8	159	649.4	-425.1	5.00
112	6,580	90.7	320.6	5,761.6	5,783.2	21.6	769.7	160	657.1	-431.5	2.24
bit	6,627	92.0	319.7	5,760.5	5,783.1	22.7	816.5	164	693.2	-461.6	3.41

OUTLINED SURVEYS TAKEN W/MWD

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR: Mobil Exploration and Production
WELL: Ratherford Unit No. 21-14
JOB NO: 253056
FIELD: Greater Aneth
LOCATION: San Juan County, Utah

DATE: 04/05
TIME: 02:40
Information provided by:

DIP1	0.03 °	0.05 °/100'	
TOP OF A	5,733.0		
@ VS	0.0		
DIP2	0.03 °	0.05 °/100'	
TOP OF A	5,733.0		
@ VS	0.0		

TERM I1 = 93.30
TERM I2 = 93.30

PROPOSED DIRECTION: 315.00 °(TRUE)

NO.	MD	INC	AZ	TVD	TOP OF DC 1A	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W	DLS/ 100
113	6,590	90.8	320.5	5,761.4	5,732.6	-28.8	779.7	161	664.8	-437.8	1.41
114	6,600	90.8	320.4	5,761.3	5,732.6	-28.7	789.6	161	672.5	-444.2	1.00
115	6,610	90.6	320.3	5,761.2	5,732.6	-28.6	799.6	162	680.2	-450.6	2.24
116	6,620	90.2	320.2	5,761.1	5,732.6	-28.5	809.6	163	687.9	-457.0	4.12
117	6,630	89.6	320.1	5,761.1	5,732.6	-28.6	819.5	164	695.6	-463.4	6.08
118	6,640	89.6	319.6	5,761.2	5,732.6	-28.6	829.5	165	703.2	-469.8	5.00
119	6,650	89.6	319.1	5,761.3	5,732.6	-28.7	839.5	166	710.8	-476.3	5.00
120	6,660	89.5	318.6	5,761.3	5,732.6	-28.8	849.4	166	718.4	-482.9	5.10
121	6,670	89.3	318.5	5,761.5	5,732.6	-28.9	859.4	167	725.8	-489.5	2.24
122	6,680	89.8	318.2	5,761.5	5,732.5	-29.0	669.4	166	733.3	-496.2	5.83
123	6,690	90.9	317.9	5,761.5	5,732.5	-28.9	879.4	168	740.8	-502.9	11.40
124	6,700	91.8	317.7	5,761.2	5,732.5	-28.7	889.4	169	748.2	-509.6	9.22
125	6,710	92.0	317.7	5,760.9	5,732.5	-28.4	899.3	169	755.6	-516.3	2.00
126	6,720	92.2	317.6	5,760.5	5,732.5	-28.0	909.3	170	762.9	-523.0	2.24
127	6,730	92.5	317.5	5,760.1	5,732.5	-27.6	919.3	170	770.3	-529.8	3.16
128	6,740	92.4	317.6	5,759.7	5,732.5	-27.2	929.3	171	777.7	-536.5	1.41
129	6,750	92.4	317.4	5,759.3	5,732.5	-26.8	939.3	171	785.1	-543.3	2.00
130	6,760	92.4	317.1	5,758.9	5,732.5	-26.4	949.3	171	792.4	-550.1	3.00
131	6,770	92.7	316.9	5,758.4	5,732.5	-25.9	959.2	172	799.7	-556.9	3.60
132	6,780	92.8	316.7	5,757.9	5,732.5	-25.4	969.2	172	807.0	-563.7	2.23
133	6,790	92.5	316.4	5,757.5	5,732.5	-25.0	979.2	172	814.2	-570.6	4.24
134	6,800	92.1	316.4	5,757.1	5,732.5	-24.6	989.2	173	821.5	-577.5	4.00
135	6,810	91.8	316.4	5,756.7	5,732.5	-24.3	999.2	173	828.7	-584.4	3.00
136	6,820	91.4	316.1	5,756.5	5,732.5	-24.0	1,009.2	173	835.9	-591.3	5.00
137	6,830	91.9	315.7	5,756.2	5,732.5	-23.7	1,019.2	173	843.1	-598.2	6.40
138	6,840	92.8	315.4	5,755.8	5,732.5	-23.3	1,029.2	173	850.2	-605.2	9.49
139	6,850	93.5	315.6	5,755.2	5,732.5	-22.7	1,039.2	173	857.4	-612.2	7.28
140	6,860	93.6	315.7	5,754.6	5,732.5	-22.1	1,049.1	173	864.5	-619.2	1.41
141	6,870	93.2	315.7	5,754.0	5,732.4	-21.5	1,059.1	174	871.6	-626.2	4.00
142	6,880	92.7	315.6	5,753.5	5,732.4	-21.0	1,069.1	174	878.8	-633.2	5.10
143	6,890	92.3	315.6	5,753.0	5,732.4	-20.6	1,079.1	174	885.9	-640.2	4.00
144	6,900	92.2	315.3	5,752.6	5,732.4	-20.2	1,089.1	174	893.0	-647.2	3.16
145	6,910	91.9	315.0	5,752.3	5,732.4	-19.9	1,099.1	174	900.1	-654.2	4.24
146	6,920	92.2	314.7	5,751.9	5,732.4	-19.5	1,109.1	174	907.2	-661.3	4.24
147	6,930	92.6	314.4	5,751.5	5,732.4	-19.1	1,119.1	174	914.2	-668.4	5.00
148	6,940	92.6	314.0	5,751.1	5,732.4	-18.6	1,129.1	174	921.1	-675.6	4.00
149	6,950	92.6	313.8	5,750.6	5,732.4	-18.2	1,139.0	173	928.1	-682.8	2.00

BECFIELD SURVEY CALCULATION PROGRAM

OPERATOR:	Mobil Exploration and Production	DATE:	04/05
WELL:	Ratherford Unit No. 21-14	TIME:	02:40
JOB NO:	253056	Information provided by:	
FIELD:	Greater Aneth		
LOCATION:	San Juan County, Utah		

DIP1	0.03 °	0.05 '/100'	TERM i1 =	93.30
TOP OF A	5,733.0		TERM i2 =	93.30
@ VS	0.0			
DIP2	0.03 °	0.05 '/100'	PROPOSED	
TOP OF A	5,733.0		DIRECTION:	315.00 °(TRUE)
@ VS	0.0			

NO.	MD	INC.	AZ	TVD	TOP OF DC 1A	above(+) below(-)	SECT	right(+) left(-)	N-S	E-W	DLS/ 100
BIT	6,970	92.6	313.4	5,749.7	5,732.4	-17.3	1 159.0	173	941 8	-697 2	2.00

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAY 3 1995
DIV. OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[ ] Oil Well [ ] Gas Well [X] Other INJECTOR

2. Name of Operator
Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

8. Well Name and No.
RATHERFORD 21-14

9. API Well No.
43-037-15753

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL
SEC. 21, T41S, R24E
BHL 942, FNL 697 FWL

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other _____	[ ] Dispose Water

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

13. 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.)*

WORK TO COMMENCE UPON APPROVAL ON AREA WIDE PERMIT FROM EPA.

SEE ATTACHMENT

14. I hereby certify that the foregoing is true and correct
Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 4-27-95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

Ratherford Unit 21-14
Injection Well Conversion

AFE # 4AE1

1. Lock and tag out all power sources. Clamp off polish rod. Remove horse head. RU pump and pump lines to casing annulus and kill well with lease water.

2. MI workover rig. ND pump tee. NU and PT BOP's. POH with sucker rods and rod pump laying down same. Release tubing anchor and POH standing back production tubing.

3. RIH with 4-3/4" rock bit without nozzles and casing scraper for 5-1/2", 15.5/14 lb/ft casing on 2-7/8" tubing to 5715'. POH.

4. RIH with squeeze packer on 2-7/8" tubing and set at 5705'. PT casing to 1000 psi. If PT fails, locate and squeeze casing leak using a RBP with sand dumped on top to isolate completion interval, and 100 sxs of class B cement containing 2 percent calcium chloride. Clean out cement and retest casing string to 1000 psi. Resqueeze as necessary. Wash sand off RBP and retrieve same. POH laying down workstring.

5. RIH with a Guiberson G-6 injection packer on new 2-7/8", 6.5 lb/ft J-55 KCTS (Threadmasters Torque Ring) Fluorolined Tubing to 5680'. Reverse circulate fresh water packer fluid containing 1 percent by volume of Tretolite CRW137 corrosion inhibitor/oxygen scavenger. Set packer at 5680'. PT backside to 1000 psi. ND BOP's. NU injection head (Ken Britton with Big Red Tool at 505/325-5045).

NOTE: A. All new KCTS tubing to be torque turned to 2250 ft-lbs (Tong Rentals at 512/668-9774). All connections of seal assembly and tubing to be made up using permiserts, permetek, and Baker Super B thread compound. Supervision of make-up/running KCTS tubing from Bill Allman with Permian Enterprises at 505/632-8702.

B. Rabbit tubing with 2.0" O.D. rabbit.

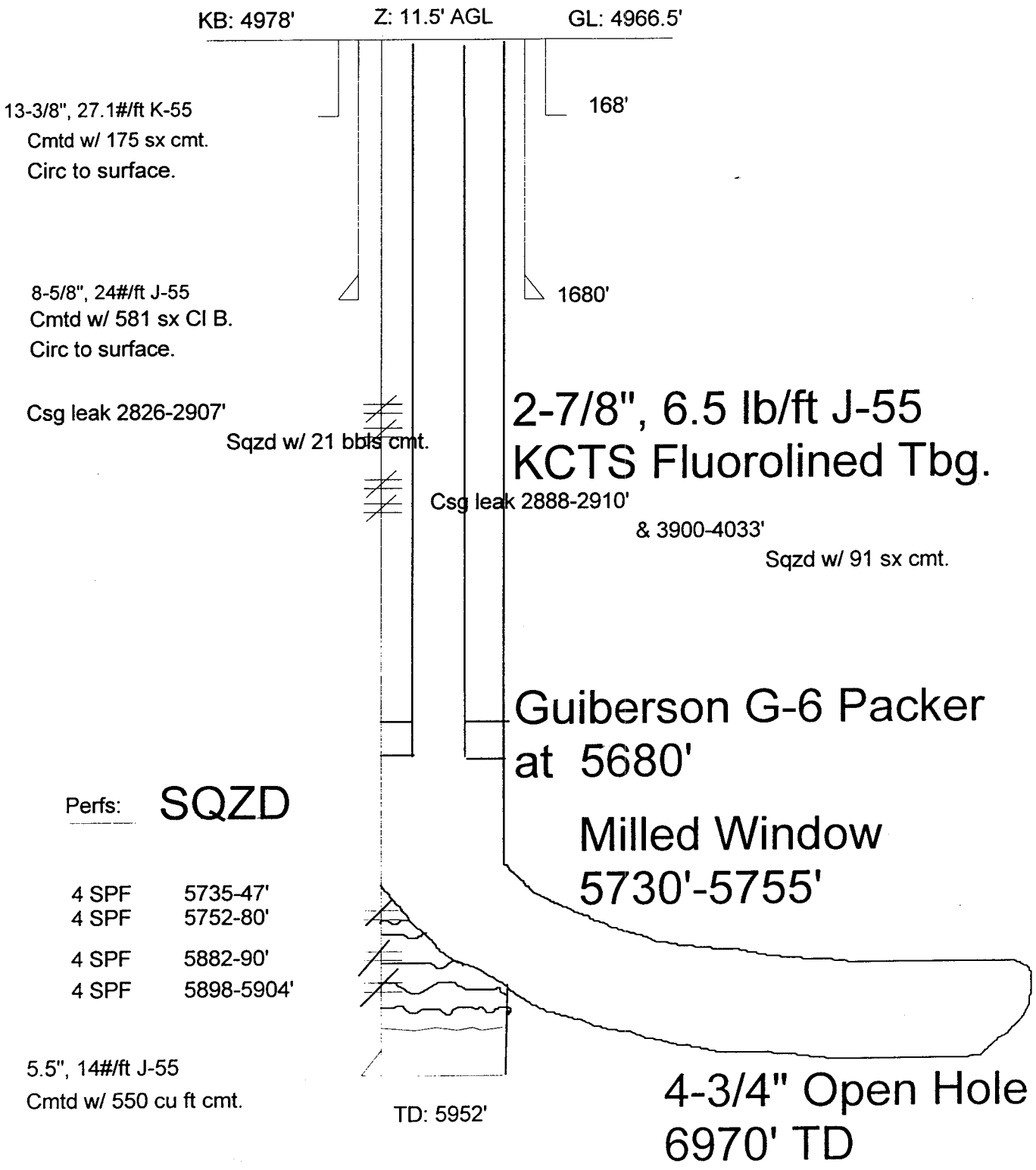
6. Perform Mechanical Integrity Test (MIT) for EPA. Contact Jim Walker of the Navajo EPA in Shiprock at 505/368-1040 to witness. Use chart recorder to record test. Send copies of chart to Shirley Todd, Midland - 1206 MOB, Ed Barber, Aneth, and Ratherford files. After obtaining an acceptable MIT, place well on water injection at 500 BWPD.

PREPARED BY: S. S. Murphy

4AEI

Ratherford Unit 21-14

Proposed



FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

C/O MOBIL OIL CORP
M E P N A
PO DRAWER G
CORTEZ CO 81321

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 6 / 95

AMENDED REPORT ☐ **(Highlight Changes)**

Well Name API Number Entity Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
#18-13 4303715734 06280 41S 24E 18	PRDX					
#19-12 4303715739 06280 41S 24E 19	PRDX					
#19-14 4303715740 06280 41S 24E 19	DSCR					
RATHERFORD UNIT 19-32 (RE-ENTRY) 4303715743 06280 41S 24E 19	DSCR					
RATHERFORD UNIT 19-34 (RE-ENTRY) 4303715744 06280 41S 24E 19	DSCR					
RATHERFORD 20-12 (RE-ENTRY) 4303715746 06280 41S 24E 20	DSCR					
THERFORD UNIT 20-14 (RE-ENTRY) 4303715747 06280 41S 24E 20	DSCR					
RATHERFORD UNIT 20-32 (RE-ENTRY) 4303715749 06280 41S 24E 20	DSCR					
RATHERFORD 20-34 (RE-ENTRY) 4303715750 06280 41S 24E 20	DSCR					
#21-12 4303715752 06280 41S 24E 21	DSCR					
RATHERFORD UNIT 21-14 (RE-ENTRY) 4303715753 06280 41S 24E 21	DSCR					
#21-32 4303715755 06280 41S 24E 21	DSCR					
#21-34 4303715756 06280 41S 24E 21	DSCR					
			TOTALS			

OMMENTS:

I hereby certify that this report is true and complete to the best of my knowledge. Date:

Name and Signature: Telephone Number:

2/93)

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[] Well File _____

(Location) Sec___Twp___Rng___

(API No.) _____

[] Suspense

(Return Date) _____

(To - Initials) _____

XXX Other

OPER NM CHG

1. Date of Phone Call: 8-3-95 Time: _____

2. DOGM Employee (name) L. CORDOVA (Initiated Call [])

Talked to:

Name R. J. FIRTH (Initiated Call XX) - Phone No. ( )

of (Company/Organization) _____

3. Topic of Conversation: M E P N A / N7370

4. Highlights of Conversation:

OPERATOR NAME IS BEING CHANGED FROM M E P N A (MOBIL EXPLORATION AND PRODUCING NORTH AMERICA INC) TO MOBIL EXPLOR & PROD. THE NAME CHANGE IS BEING DONE AT THIS TIME TO ALLEVIATE CONFUSION, BOTH IN HOUSE AND AMONGST THE GENERAL PUBLIC.

*SUPERIOR OIL COMPANY MERGED INTO M E P N A 4-24-86 (SEE ATTACHED).

Mobil Oil Corporation

P.O. BOX 5444
DENVER, COLORADO 80217-5444

May 14, 1986

RECEIVED
MAY 16 1986
DIVISION OF
OIL, GAS & MINING

Utah Board of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attn: R. J. Firth
Associate Director

SUPERIOR OIL COMPANY MERGER

Dear Mr. Firth:
On September 20, 1984, The Superior Oil Company (Superior) became a wholly owned subsidiary of Mobil Corporation. Since January 1, 1985, Mobil Oil Corporation (MOC), another wholly owned subsidiary of Mobil Corporation, has acted as agent for Superior and has operated the Superior-owned properties.

On April 24, 1986, Superior was merged with Mobil Exploration and Producing North America Inc. (MEPNA), which is also a wholly owned subsidiary of Mobil Corporation. MEPNA is the surviving company of the merger.

This letter is to advise you that all properties held in the name of Superior will now be held in the name of MEPNA; and that these properties will continue to be operated by MOC as agent for MEPNA.

Attached is a listing of all wells and a separate listing of injection-disposal wells, Designation of Agent and an organization chart illustrating the relationships of the various companies. If you have any questions or require additional documentation of this merger, please feel free to contact me at the above address or (303) 298-2577.

Very truly yours,

R. D. Baker
Environmental Regulatory Manager

CNE/rd
CNE8661

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1- LEC	7-PL
2- LWP	8-SJ
3- ~~DTS~~	9-FILE
4- VLC	
5- RJF	
6- LWP	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

☐ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator XXX Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: **8-2-95**)

TO (new operator) **MOBIL EXPLOR & PROD**
(address) **C/O MOBIL OIL CORP**
PO DRAWER G
CORTEZ CO 81321
phone (**303**) **564-5212**
account no. **N7370**

FROM (former operator) **M E P N A**
(address) **C/O MOBIL OIL CORP**
PO DRAWER G
CORTEZ CO 81321
phone (**303**)**564-5212**
account no. **N7370**

Well(s) (attach additional page if needed):

Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
** SEE ATTACHED **	037-15753					

OPERATOR CHANGE DOCUMENTATION

N/A 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form).

N/A 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form).

N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.

N/A 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (8-3-95)

LWP 6. Cardex file has been updated for each well listed above. 8-31-95

LWP 7. Well file labels have been updated for each well listed above. 9-28-95

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (8-3-95)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

OPERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only) * No Fee Lease Wells at this time!

N/A/Lec 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

___ 2. A copy of this form has been placed in the new and former operators' bond files.

___ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 8/5/95

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases**.

FILMING

✓ 1. All attachments to this form have been microfilmed. Date: October 6 19 95.

FILING

___ 1. Copies of all attachments to this form have been filed in each well file.

___ 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

950803 UIC F5/Not necessary!

WE71/34-35

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other INJECTOR

2. Name of Operator Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL
SEC. 21, T41S, R24E
BHL 942' FNL, 697' FWL

8. Well Name and No.
RATHERFORD 21-14

9. API Well No.
43-037-15753

10. Field and Pool, or exploratory Area
GREATER ANETH

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other INJECTOR	☐ Dispose Water

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

13. 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.)*

COMMENCED INJECTION ON NOVEMBER 20, 1995

RECEIVED
OCT 1 1 1996
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Shirley Houchens Title ENV. & REG. TECHNICIAN Date 10-08-96

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

SUBMIT IN TRIPLICATE

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other SIDETRACK

2. Name of Operator Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 915-688-2585

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SW/SW 660 FSL & 460 FWL
SEC.21, T41S, R24E

8. Well Name and No.
RATHERFORD 21-14

9. API Well No.
43-037-15753

10. Field and Pool, or exploratory Area
GREATER ANETH

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report *	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other SIDETRACK	[ ] Dispose Water

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

13. 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.)*

BHL: LATERAL #1 1090' SOUTH & 1556' EAST F/SURFACE SPOT (ZONE 1a).

332 474

640W 2102 FWL] SEC 21
306.38N 1006 FNL] 415
246

SEE ATTACHED PROCEDURE.

RECEIVED
AUG 29 1997
DIV. OF OIL, GAS & MINING

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

Signed Shirley Houchins Title ENV. & REG. TECHNICIAN Date 08-26-97

(This space for Federal or State office use)

Approved by John R. Baza Title Associate Director Date 9/23/97

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

Ratherford Unit Well #21-14
Horizontal Drilling Procedure

The objective of this procedure is to prepare this wellbore for sidetracking, sidetrack the subject well and short radius horizontal lateral (1900 ft).

1. Prepare location and dig working pit.

2. MIRU WSU, reverse unit, and H_2S equipment. Bullhead kill weight fluid down tubing.

3. Release packer, and pick up on wellhead to remove. ND wellhead and NU BOP's. Pressure test BOP's.

4. Continue to POH with tubing.

5. TIH with full gauge bit and casing scraper to PBTD. TOH with bit and scraper.

6. Ensure well will circulate, and set RTBP above perfs. **Pressure test casing to 1000 psi.**

7. RDMO WSU.

8. MIRU 24 hr WSU.

9. PU tubing, drill collars, and drill pipe in derrick and run in hole. Then POH and stand back.

10. Run RTBP on wireline and set using GR/CCL log to correlate with. RD wireline.

11. PU drillpipe with UBHO sub and whipstock and starter mill.

12 Run gyro and obtain orientation of whipstock face. Set whipstock.

13. Shear pilot mill bolt and start milling window.

14. POH and PU window mill and watermelon mill to finish window and drill 2 ft of formation.

15. POH w/ mills and RBIH w/ new mills to clean up window.

16. PU drill pipe, MWD, and directional motors to drill curve. Use the gyro to drill until the inclination dictates that the gyro must be pulled.

17. Finish drilling the curve using the MWD.

18. POH once curve is finished and PU lateral motor to drill the lateral using MWD.

19. Once lateral TD is reached, POH w/ directional equipment.

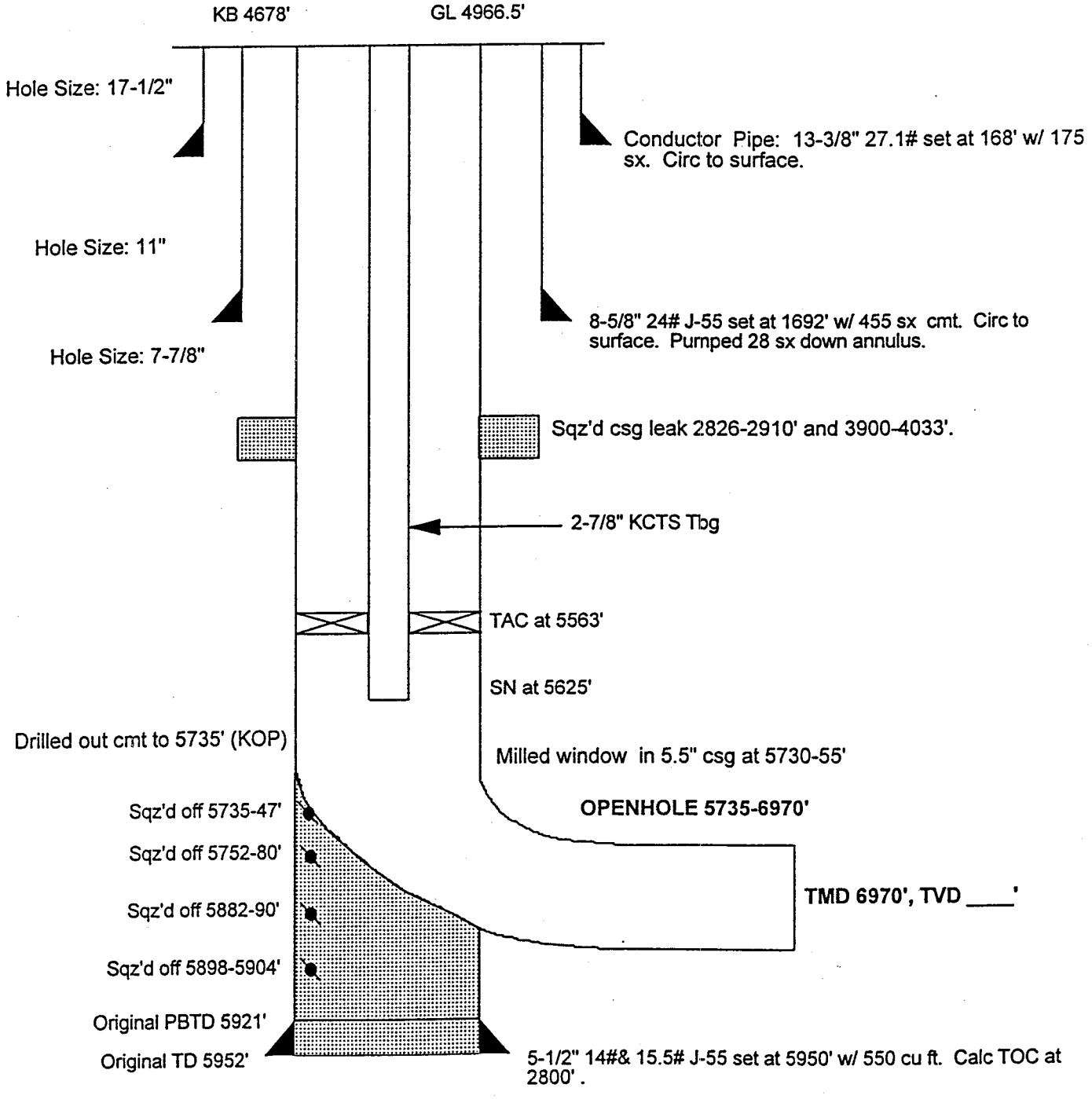
20. PU RTBP and set at 5500'. RDMO.

RATHERFORD UNIT # 21-14
GREATER ANETH FIELD
Surface Location: 660' FSL, 460' FWL
SEC 21-T41S-R23E

BH Location: 942' N & 697' W of Surf. Loc.
SEC 20-T41S-R23E

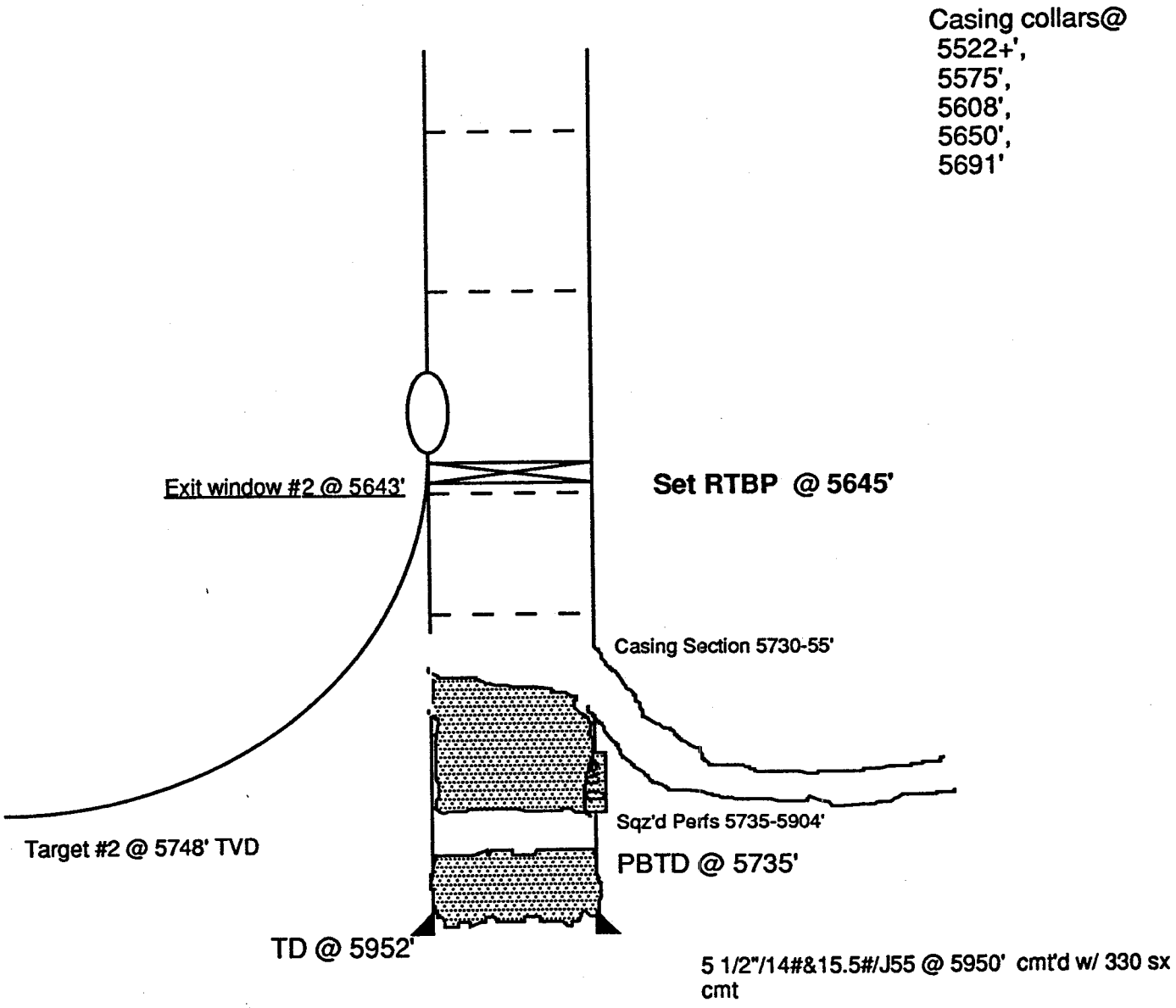
PRODUCER

SAN JUAN COUNTY, UTAH
API 43-037-15753
PRISM 0043113



L. A. TUCKER 8-2-96 R.U. # 21-14

Whipstock plan for Ratherford #21-14



Casing (from btm)

135 ft 15.5#/J55/LTC
5784 ft 14#/ J55/LTC
32 ft 15.5#/J55/LTC

Window	Btm-Top of window	Extension length	Curve radius	Bearing	Horiz Displ
2	5643-37	-	105	125	1900

*The double spline is 2.77 ft long and the bottom of the whipstock, latch, and debris sub and shear sub are 11.68 ft long. These lengths must be added to the extension lengths to determine the entire whipstock assembly length.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 08/29/97

API NO. ASSIGNED: 43-037-15753

WELL NAME: RATHERFORD 21-14 MULTI-LEG
OPERATOR: MOBIL EXPL & PROD (N7370)

PROPOSED LOCATION:
SWSW 21 - T41S - R24E
SURFACE: 0660-FSL-0460-FWL
BOTTOM: 1006-FNL-2102-FWL
SAN JUAN COUNTY
GREATER ANETH FIELD (365)

LEASE TYPE: IND
LEASE NUMBER: 14-20-603-355

PROPOSED PRODUCING FORMATION: DSCR

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Federal [✓] State [] Fee []
(Number NAVAJO TRIBAL)
N Potash (Y/N)
N Oil shale (Y/N)
✓ Water permit
(Number NAVAJO ALLOTMENT)
N RDCC Review (Y/N)
(Date:)

LOCATION AND SITING:

✓ R649-2-3. Unit: RATHERFORD
___ R649-3-2. General.
___ R649-3-3. Exception.
___ Drilling Unit.
Board Cause no:
Date:

COMMENTS:

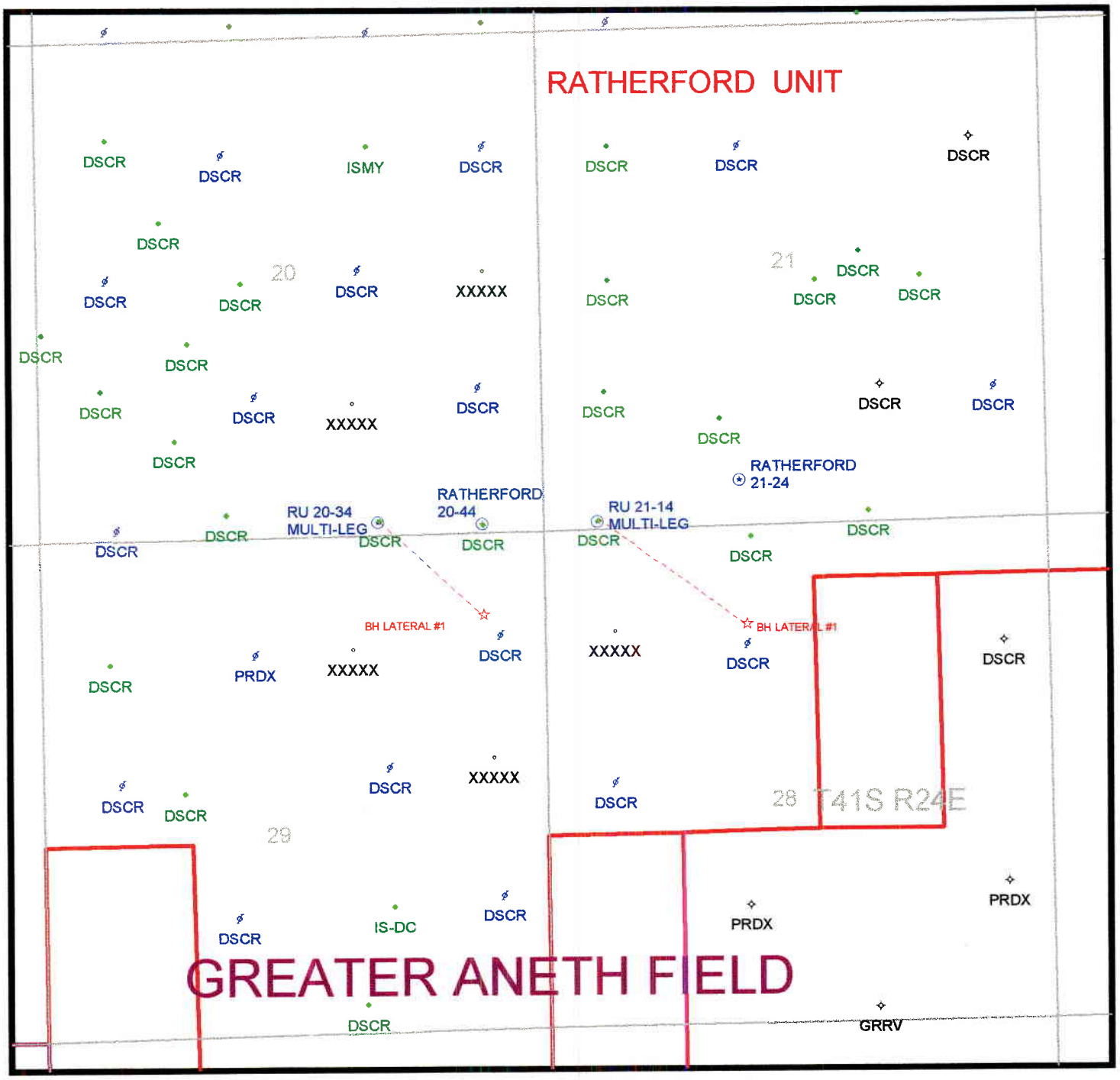
STIPULATIONS: 1. Directional drilling

OPERATOR: MOBIL EXPL & PROD (N7370)

FIELD: GREATER ANETH (365)

SEC, TWP, RNG: SEC. 20 & 21, T41S, R24E

COUNTY: SAN JUAN UAC: R649-2-3 RATHERFORD UNIT



PREPARED:
DATE: 15-SEP-97

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

September 24, 1997

Mobil Exploration & Producing U.S., Inc.
P.O. Box 633
Midland, Texas 79702

Re: Ratherford 21-14 (Re-entry) Well, 660' FSL, 460' FWL, SW SW, Sec. 21, T. 41 S., R. 24 E., San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to re-enter and drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-15753.

Sincerely,

John R. Baza
Associate Director

lwp
Enclosures
cc: San Juan County Assessor
Bureau of Land Management, Moab District Office

Operator: Mobil Exploration & Producing U.S., Inc.

Well Name & Number: Ratherford 21-14 (Re-entry)

API Number: 43-037-15753

Lease: 14-20-603-355

Location: SW SW **Sec.** 21 **T.** 41 S. **R.** 24 E.

Conditions of Approval

1. General
   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements
   Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jim Thompson at (801)538-5336.

   Notify the Division prior to commencing operations to plug and abandon the well. Contact John R. Baza (801)538-5334.

3. Reporting Requirements
   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. In accordance with Utah Admin. R. 649-3-11, Directional Drilling, submittal of a complete angular deviation and directional survey report is required.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other SIDETRACK
2. Name of Operator: Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing TX & NM Inc.
3. Address and Telephone No.: P.O. Box 633, Midland, TX 79702 915-688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SW/SW 660 FSL & 460 FWL
SEC.21, T41S, R24E
BHL: LATERAL #1 942' FNL & 697' FWL/SURFACE LOCATION (TD 6970')

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other SIDETRACK	[ ] Dispose Water

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

13. 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.)*

BHL: LATERAL #2 1090' SOUTH & 1556' EAST F/SURFACE SPOT (ZONE 1a).

SUNDRY FILED TO CORRECT LATERAL NUMBER.

RECEIVED
SEP 29 1997
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Sue Moseley for SHIRLEY HOUCHINS Title ENV. & REG. TECHNICIAN Date 09-26-97

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: MOBIL E & P

Well Name: RATHERFORD UNIT 21-14

Api No. 43-037-15753

Section: 21 Township: 41S Range: 24E County: SAN JUAN

Drilling Contractor: BIG "A"

Rig # 25

SPUDDED:

Date: 10/12/97

Time: _____

How: ROTARY

Drilling will commence: _____

Reported by: BENNY BRIGGS

Telephone NO.: _____

Date: 10/15/97 Signed: JLT

ROCKY MOUNTAIN GEO-ENGINEERING
Well Logging • Consulting Geology • Coal Bed Methane Services • Computerized Logging Equipment & Software
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
2450 INDUSTRIAL BLVD. • GRAND JUNCTION, CO 81505
(970) 243-3044 • (FAX) 241-1085

Thursday, October 23, 1997

RECEIVED
OCT 29 1997
DIV. OF OIL, GAS & MINING

Division of Oil & Gas Mining
State of Utah
1636 W. North Temple
Salt Lake City, UT 84116

Re: Ratherford Unit #21-14
SEC 21 ~~Sec. 1, T~~41S, R24E
San Juan County, Utah

Dear Sirs: 43 037 15753

DRL

Enclosed are the final computer colored logs and geology reports for the above referenced well.

IN LOG FILE

We appreciate the opportunity to be of service to you and look forward to working with you again in the near future.

If you have any questions regarding the enclosed data, please contact us.

Sincerely,

Bill Nagel

Bill Nagel
Senior Geologist

BN/dn

Enc. 1 Final Computer Colored Log & 1 Geology Report

cc Letter Only; Dana Larson; Mobil E & P U.S., Inc.; Midland, TX

RECEIVED
OCT 29 1997
DIV. OF OIL, GAS & MINING

MOBIL

RATHERFORD UNIT #21-14
SE HORIZONTAL LATERAL LEG #1
1-A POROSITY BENCH
DESERT CREEK MEMBER
PARADOX FORMATION
SECTION 1, T41S, R23E
SAN JUAN, UTAH

GEOLOGY REPORT
by

JASON G. BLAKE / MARVIN ROANHORSE / DAVE MEADE
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044

TABLE OF CONTENTS

WELL SUMMARY 3

DAILY WELL CHRONOLOGY 4

DAILY ACTIVITY 5

BIT RECORD 6

SURVEY RECORD 7

MUD RECORD 10

SAMPLE DESCRIPTIONS 11

FORMATION TOPS 20

GEOLOGIC SUMMARY AND ZONES OF INTEREST 21

WELL PLOTS 24

WELL SUMMARY

OPERATOR:	MOBIL EXPLORATION & PRODUCTION U.S. INC.
NAME:	RATHERFORD UNIT #21-14 SE HORIZONTAL LATERAL LEG #1 IN 1-A POROSITY BENCH, DESERT CREEK
LOCATION:	SECTION 21, T41S, R23E
COUNTY/STATE:	SAN JUAN, UTAH
ELEVATION:	KB: 4978' GL: 4666.5'
SPUD DATE:	10/15/97
COMPLETION DATE:	10/19/97
DRILLING ENGINEER:	SIMMON BERRARA
WELLSITE GEOLOGY:	JASON G. BLAKE
MUDLOGGING ENGINEERS:	JASON BLAKE / MARVIN ROANHORSE
CONTRACTOR:	BIG "A" RIG 25
TOOLPUSHER:	J. DEES
HOLE SIZE:	4 3/4"
CASING RECORD:	KICK OFF POINT IN WINDOW AT 5630' MEASURED DEPTH
DRILLING MUD:	M-I
ENGINEER:	RON WESTENBERG / DANNE BEASON
MUD TYPE:	FRESH WATER & BRINE WATER W/ POLYMER SWEEPS
DIRECTIONAL DRILLING CO:	SPERRY-SUN
ELECTICAL LOGGING:	NA
TOTAL DEPTH:	7443' MEASURED DEPTH; 5671.39' TRUE VERTICAL DEPTH
STATUS:	TOH & LAY DOWN TOOLS - PREPARE FOR RIG MOVE

DRILLING CHRONOLOGY
RATHERFORD UNIT #21-14
1-A SE HORIZONTAL LATERAL LEG #1

DATE	DEPTH	DAILY	ACTIVITY
10/15/97	5622'	4'	RU & run wireline-would not seat. RD wireline & TOH. Remove float sub. TIH with whipstock, break circ, RU wireline & orient whipstock. Set whipstock and RD wireline. Mill with starter mill 5622'-5624', CO, hang swivel & TOH. LD starter mill, PU window and watermellon mill and TIH. Swivel up & mill 5624'-5626'.
10/16/97	5626'	20'	Mill casing 5626'-5630', pump sweep & CO. LD 14 jts DP & TOH. LD mill assembly, PU curve motor assembly & orient tool. TIH w/curve assembly. PU swivel & break cir. RU & run gyro w/ Gyro Data & Weatherford. Time drlg from 5630'-5646'.
10/17/97	5646'	174'	Dir drlg & wireline surveys, 5646'-5664'. Pull gyro. Dir drlg & surveys, 5664'-5820', end of curve. Run high vis sweep & CO. LD 63 Jts DP & TOH. LD curve motor assembly & PU lateral motor assembly. Test, orient, & TIH.
10/18/97	5820'	817'	Finish TIH with lateral motor assembly. PU swivel & break circ. Dir drlg & surveys, 5820'-6637'.
10/19/97	6637'	1106'	Dir drlg & surveys, 6637'-7743', decision made to terminate Leg #1. Cir sweep & smpls out. Pump 35 bbls water. Shut in & kill well.
10/20/97	7743'	0'	Kill well. TOH. Fill hole & check for flow.

DAILY ACTIVITY

Operator: MOBIL
Well Name: RATHERFORD UNIT #21-14 SE 1-A HORIZONTAL LATERAL LEG #1

DATE	DEPTH	DAILY	DATE	DEPTH	DAILY
10/14/97	5622'	0			
10/15/97	5622'	4'			
10/16/97	5626'	20'			
10/17/97	5646'	174'			
10/18/97	5820'	817'			
10/19/97	6637'	1106'			
TD	7443'				

BIT RECORD

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #21-14 SE 1-A HORIZONTAL LATERAL LEG #1

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HRS	FT/HR
#1	4 3/4"	STC	MF-3P	5630'/ 5820'	190'	19.5	9.74
RR							
#2	4 3/4"	HTC	STR-20	5820'/ 7443'	1923'	41	46.9

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/21-14, 2A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
5600.00	0.40	158.30	5599.83	18.94 S	2.08 E	12.57	0.00
5622.00	0.36	153.32	5621.83	19.07 S	2.14 E	12.69	0.24
5630.00	4.30	133.80	5629.82	19.30 S	2.37 E	13.01	49.53
5640.00	9.40	132.80	5639.75	20.12 S	3.24 E	14.19	51.01
5650.00	15.00	132.50	5649.52	21.55 S	4.79 E	16.29	56.00
5660.00	21.00	132.30	5659.02	23.63 S	7.07 E	19.35	60.00
5670.00	26.40	132.20	5668.18	26.33 S	10.05 E	23.34	54.00
5680.00	29.90	132.20	5676.99	29.50 S	13.54 E	28.02	35.00
5690.00	33.20	132.10	5685.51	33.01 S	17.42 E	33.21	33.00
5700.00	37.20	132.10	5693.68	36.88 S	21.70 E	38.93	40.00
5710.00	40.30	128.80	5701.48	40.93 S	26.46 E	45.15	37.24
5720.00	43.50	128.20	5708.92	45.09 S	31.69 E	51.82	32.25
5730.00	46.80	130.40	5715.98	49.58 S	37.17 E	58.89	36.50
5740.00	51.60	129.50	5722.51	54.44 S	42.97 E	66.43	48.48
5750.00	57.20	127.70	5728.33	59.50 S	49.33 E	74.54	57.88
5760.00	62.50	126.80	5733.35	64.73 S	56.21 E	83.18	53.57
5770.00	67.20	127.10	5737.60	70.17 S	63.44 E	92.22	47.08
5780.00	71.90	128.20	5741.09	75.90 S	70.86 E	101.58	48.12
5790.00	77.00	129.20	5743.77	81.92 S	78.37 E	111.19	51.90
5820.00	90.00	130.70	5747.16	101.02 S	101.17 E	140.82	43.62
5847.11	89.80	128.90	5747.21	118.37 S	122.00 E	167.83	6.68
5878.77	89.70	128.40	5747.34	138.15 S	146.72 E	199.43	1.61
5909.64	89.60	128.80	5747.53	157.41 S	170.85 E	230.24	1.34
5941.44	90.10	129.10	5747.62	177.40 S	195.58 E	261.96	1.83
5973.16	91.00	128.90	5747.31	197.36 S	220.23 E	293.60	2.91
6004.88	90.10	127.40	5747.01	216.95 S	245.17 E	325.27	5.51
6036.74	89.60	125.40	5747.09	235.86 S	270.81 E	357.12	6.47
6068.58	90.50	125.10	5747.06	254.23 S	296.82 E	388.96	2.98
6100.42	91.80	124.50	5746.42	272.40 S	322.95 E	420.79	4.50
6131.48	92.60	124.40	5745.23	289.96 S	348.55 E	451.83	2.60
6163.22	92.90	123.70	5743.71	307.71 S	374.82 E	483.52	2.40
6194.29	91.80	123.30	5742.43	324.84 S	400.70 E	514.56	3.77
6225.34	90.30	123.70	5741.87	341.97 S	426.59 E	545.59	5.00
6257.19	89.20	123.70	5742.00	359.65 S	453.09 E	577.43	3.45
6288.91	88.60	123.30	5742.61	377.15 S	479.53 E	609.13	2.27
6319.87	88.20	122.80	5743.48	394.03 S	505.47 E	640.06	2.07
6351.69	88.70	122.30	5744.34	411.14 S	532.28 E	671.84	2.22
6383.43	89.40	121.90	5744.86	428.01 S	559.17 E	703.54	2.54

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/21-14, 2A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
6415.32	89.60	121.90	5745.14	444.86 S	586.24 E	735.38	0.63
6447.04	88.60	122.10	5745.64	461.66 S	613.14 E	767.05	3.21
6477.67	89.60	121.40	5746.12	477.78 S	639.18 E	797.63	3.98
6509.49	90.20	121.60	5746.18	494.41 S	666.31 E	829.39	1.99
6541.11	89.50	122.30	5746.26	511.14 S	693.14 E	860.96	3.13
6572.85	89.50	121.70	5746.54	527.96 S	720.06 E	892.66	1.89
6603.82	88.20	122.10	5747.16	544.32 S	746.34 E	923.58	4.39
6635.61	88.30	122.10	5748.13	561.20 S	773.26 E	955.31	0.31
6667.44	88.10	122.60	5749.13	578.23 S	800.14 E	987.09	1.69
6699.24	87.70	122.40	5750.30	595.30 S	826.94 E	1018.84	1.41
6730.95	87.40	122.80	5751.65	612.37 S	853.63 E	1050.49	1.58
6762.68	87.40	123.10	5753.09	629.61 S	880.23 E	1082.17	0.94
6794.36	87.50	122.80	5754.50	646.83 S	906.78 E	1113.80	1.00
6825.54	88.20	123.30	5755.67	663.82 S	932.90 E	1144.94	2.76
6857.40	89.10	123.50	5756.42	681.35 S	959.49 E	1176.78	2.89
6889.18	90.20	123.70	5756.61	698.94 S	985.96 E	1208.55	3.52
6920.97	89.60	123.30	5756.67	716.48 S	1012.47 E	1240.32	2.27
6952.79	89.30	123.80	5756.98	734.07 S	1038.99 E	1272.13	1.83
6984.51	89.30	123.80	5757.36	751.71 S	1065.34 E	1303.84	0.00
7016.27	89.30	124.00	5757.75	769.43 S	1091.70 E	1335.60	0.63
7047.35	88.80	123.50	5758.27	786.69 S	1117.54 E	1366.66	2.27
7079.84	88.60	123.70	5759.00	804.67 S	1144.60 E	1399.14	0.87
7110.87	88.60	123.50	5759.76	821.83 S	1170.43 E	1430.15	0.64
7142.70	88.60	122.80	5760.54	839.23 S	1197.08 E	1461.95	2.20
7174.45	89.50	123.30	5761.07	856.55 S	1223.68 E	1493.68	3.24
7205.61	89.00	122.60	5761.47	873.49 S	1249.83 E	1524.81	2.76
7237.45	89.30	122.80	5761.95	890.69 S	1276.62 E	1556.63	1.13
7269.29	89.80	124.20	5762.20	908.26 S	1303.17 E	1588.45	4.67
7301.14	90.80	124.40	5762.03	926.21 S	1329.48 E	1620.30	3.20
7332.88	91.70	125.10	5761.34	944.30 S	1355.55 E	1652.03	3.59
7364.62	90.00	125.60	5760.87	962.66 S	1381.44 E	1683.77	5.58
7396.35	90.10	126.50	5760.84	981.33 S	1407.09 E	1715.49	2.85
7409.00	89.20	126.10	5760.92	988.82 S	1417.29 E	1728.14	7.79
7443.00	89.20	126.10	5761.39	1008.85 S	1444.75 E	1762.13	0.00

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET.
N/E COORDINATE VALUES GIVEN RELATIVE TO WELL SYSTEM REFERENCE POINT.
TVD COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
THE VERTICAL SECTION ORIGIN IS WELL HEAD.
THE VERTICAL SECTION WAS COMPUTED ALONG 125.00 (TRUE).
CALCULATION METHOD: MINIMUM CURVATURE.

SURVEY AT 7443 IS A PROJECTION

MUD REPORT

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #21-14 SE 1-A HORIZONTAL LATERAL LEG #1

DATE	DEPTH	WT	VIS	PLS	YLD	GEL	pH	WL	CK	CHL	CA	S D	OIL	WTR
10/15/97	5622'	10	26	–	–	–	6.4		–	188 K	800	–	0%	100%
10/16/97	5630'	10	26	–	–	–	11.6	–	–	185K	800	–	0%	100%
10/17/97	5820'	9.6	26	–	–	–	11.6	–	–	147K	680	–	0%	100%
10/18/97	6166'	9.3	26	–	–	–	11.6	–	–	108k	680	–	0%	100%
10/19/97	7020'	PUMP	CA/CL	TO	KILL	FLOW								
10/20/97	7443'	PUMP	CA/CL	TO	KILL	FLOW								

SAMPLE DESCRIPTIONS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #21-14 SE 1-A HORIZONTAL LATERAL LEG #1

DEPTH	LITHOLOGY
5630.00 5640.00	"LS wh-tn-ltgy,ltgybrn,occ ltbrn,crpxl,occ micxl,cln-chky,dns-sl arg ip,tr trnsl-lt gybrn-tn CHT frag,rr blk SH lam-prtgs NFSOC"
5640.00 5650.00	"LS wh-ltgybrn,mbrngy-brn,occ ltgy,crpxl-micxl,dns,rthy,sl mot/occ cln chky strk,incr scat dkbrn & ltgy CHT frag,sl shy/tr blk SH prtgs,tt,tr-rr v dull yel FLOR,NSOC"
5650.00 5660.00	"LS ltgybrn-ltgy-crm,occ ltbrn-brn,crpxl-occ micxl,rthy-tr slty strk,sl chky,CHT AA,NFSOC,occ intbd w/SH blk,carb,sl calc,sooty ip"
5660.00 5670.00	"LS,crm-tn-lt brn,mic-crypt xln,pred dns-mhd to chky/rthy-msft ip,sl foss,scat tn CHT,rr blk carb SH ptgs,rr anhy;rr rthy POR,NFSOC"
5670.00 5680.00	"LS,crm-tn-brn,crypxln,dns-sl chky AA,LS,dk brn-dk gr,micxln,argil,dns,sl foss grd to CALC SH,dkgr-blk,blky,mhd,scat tn-dk gr CHT,sl intxl POR,NFSOC"
5680.00 5690.00	"LS,brn-gr-crm ip,sl mott,cryxln,pred dns-sl chky ip,sl foss,scat xln ANHY incl,scat dk brn CHT,no vis POR,NFSOC"
5690.00 5700.00	"LS,brn-gr-crm ip,sl mott,cryxln,pred dns-sl chky ip,sl foss,scat xln ANHY incl,scat dk brn CHT,no vis POR,NFSOC"
5700.00 5710.00	"LS,tn-lt brn,crypxln,dns,mhd,sl anhy,scat tn CHT+inbd slty SS,crm-wht,vfxl grn,slty,calc cem,sl foss,rr glauc;pr intrgrn POR,NFSOC"
5710.00 5720.00	"LS,tn-lt brn,crypxln,dns,anhy AA grd to LS,lt gr,sndy/slty,sl anhy,sl micro pyr,scat-com sndy SLTST grd to SS,lt gr,vfxl grn,scat lt gr transl CHT,pr POR,NFSOC"
5720.00 5730.00	"LS,crm-tn-lt brn,mic-crypxln,dns-chky/slty,m-sl hd,sl anhy+scat SS & SLTST AA,no vis POR,NFSOC"
5730.00 5740.00	"SH,dkbrn blk-blk,sb blky-blky-sl plty ip,sft-mfrm,rthy-slty,carb,tr coal frag,calc,sooty"
5740.00 5750.00	"pred SH,dkbrn-blk,sft-mfrm,calc AA+scat LS,wht-brn,mott,micxln,msft to brn,crypxln,dns,sl pyritic;no vis POR,NFSOC"
5750.00 5760.00	"LS,offwht-lt brn,mott,micxln,plty,argil-sndy-ool ip,anhy,scat blkSH ptgs,vpr-no POR,no STN,FLOR or CUT"
5760.00 5770.00	"LS,crm-lt tn,vfxl-micxln,sl sndy tex,rr foss rem,scat xln anhy,scat blk-dk brn SH AA,com cem,lt gr,sft(poss from squeeze jobs);no vis POR,rr spotty FLOR,no CUT"
5770.00 5780.00	"LS ltbrn-tn-crm,occ brn,wh,crpxl-micxl,gran-ooliclastic,occ vfxl,w/intbd ooc GRNST,sl chky/vrr anhy prtgs,rr ool,g-fr intxl-oolimoldic POR,g scat spty mod bri-bri yel FLOR,fr-g brn/occ dkbrn-blk STN,g-fr slow stmg mlky CUT"

DEPTH	LITHOLOGY

5780.00 5800.00 "LS lt-mbrn,tn,occ crm-wh,oolimoldic-gran,micxl-crpxl,pred oom GRNST/tr dns scat-intbd PCKST,sl chky-anhy,rr ool,g oom-intxl POR,incr FLOR AA,STN-CUT AA"

5800.00 5810.00 "LS AA,pred oolimoldic GRNST,tr scat-intbd dns PCKST,sl chky-anhy,g oom-fr intxl/tr pp vug POR,g-fr scat spty mod bri-bri yel FLOR,g brn/tr dkbrn-blk STN,g mod fast stmg mlky CUT"

5810.00 5820.00 "LS m-ltbrn,occ tn,dkbrn,crm-wh,oolimoldic-gran-micxl,occ crpxl,oom GRNST/decr PCKST,sl chky-anhy ip,POR-FLOR AA,g brn-dkbrn/sl incr blk STN,g mod fast-slow stmg mlky CUT"

5820.00 5840.00 "LS m-ltbrn,occ tn,dkbrn,crm-wh,gran-micxl,occ crpxl,oolitic-oom GRNST,scat PCKST AA (cvgs),sl chky-anhy ip,g-ex oomoldic-sec intxl/vug POR,mod yel-gld FLOR,g brn-dkbrn-blk STN,g mod fast strm mlky CUT"

5840.00 5860.00 "LS m-ltbrn,occ tn,dkbrn,crm-wh,gran-micxl,occ crpxl,oolitic-oom GRNST,scat PCKST AA (cvgs),sl chky-anhy ip,g-ex oomoldic-sec intxl/vug POR,mod yel-gld FLOR,g brn-dkbrn-blk STN,g mod fast strm mlky CUT"

5860.00 5880.00 "LS GRNST,lt-med brn,occ crm,dk brn,vfxl-mic xln,grny,oolitic,rr anhy,scat PCKST,crn-tn,mhd-dns,sl oolitic; g oomoldic & intxl POR,fr-g brn-spotty blk STN,even mod yel-gld FLOR,mod strm CUT"

5880.00 5890.00 "LS,tn-brn,occ crm-dk brn,mott,vfxl-mic xln,suc/gran,oolitic-oom GRNST,vsl anhy,scat PCKST,crm-tn AA; g oomoldic-fr intxl POR,minor oolicast POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm CUT"

5890.00 5910.00 "LS,tn-brn,occ crm-dk brn,mott,vfxl-mic xln,suc/gran,oolitic GRNST AA,vsl anhy,scat PCKST,crm-tn,dns; g oomoldic-fr intxl POR,minor oolicast POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm CUT"

5910.00 5920.00 "LS,tn-brn,occ crm-dk brn,mott,vfxl-mic xln,suc/gran,oolitic GRNST AA,vsl anhy,scat PCKST,crm-tn,dns; g oomoldic-fr intxl POR,minor oolicast POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm CUT"

5920.00 5940.00 "LS,tn-brn,occ crm-dk brn,mott,vfxl-mic xln,suc/gran,oolitic GRNST,vsl anhy,scat PCKST,crm-tn,dns; decr oomoldic-fr intxl POR,minor oolicast POR,brn-spotty blk STN,even yel-gld FLOR,pr-fr strm CUT"

5940.00 5960.00 "LS,tn-brn,occ crm-dk brn,mott,vfxl-mic xln,suc/gran,oolitic GRNST,vsl anhy,scat PCKST,crm-tn,dns; decr oomoldic-fr intxl POR,minor oolicast POR,brn-spotty blk STN,even yel-gld FLOR,pr-fr strm CUT"

5960.00 5970.00 "LS,tn-med brn,occ crm-dk brn,vfxl-micxln,grny/suc tex,oolitic GRNST,scat LS PCKSTcrm-tn,micxln,dns,sl anhy; fr-g oomold-minor intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

5970.00 5990.00 "LS,tn-med brn,occ crm-dk brn,vfxl-micxln,grny/suc tex,oolitic GRNST,scat LS PCKSTcrm-tn,micxln,dns,sl anhy; fr-g oomold-minor intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

5990.00 6000.00 "LS,brn-med brn,occ crm-dk brn,vfxl-micxln,grny/suc tex,oolitic GRNST,scat LS PCKST,crm-tn,micxln,dns,sl anhy; g oomold-fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

DEPTH	LITHOLOGY

6000.00 6020.00 "LS,tn-med brn,occ crm-dk brn,vfxl-micxln,grny/suc tex,oolitic GRNST,scat LS PCKSTcrm-tn,micxln,dns,sl anhy; fr-g oomold-minor intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

6020.00 6030.00 "LS GRNST,mdbrn-brn,occ dkbrn-crm,vfxl-micxln,grny/suc tex,oolitic,scat LS PCKST,crm-brn,micxln,dns,sl oolitic;fr-g oomold grd to introol POR,fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr strm-diff CUT"

6030.00 6050.00 "LS GRNST,mdbrn-brn,occ dkbrn-crm,vfxl-micxln,grny/suc tex,oolitic,scat LS PCKST,crm-brn,micxln,dns,sl oolitic;fr-g oomold-introol POR,fr intxl POR,even brn-sl incr spotty blk STN,even yel-gld FLOR,fr strm-diff CUT"

6050.00 6060.00 "LS GRNST,mdbrn-brn,occ dkbrn-crm,vfxl-micxln,grny/suc tex,oolitic,scat LS PCKST,crm-brn,micxln,dns,sl oolitic;fr-g oomold to introol POR,fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr strm-diff CUT"

6060.00 6080.00 "LS GRNST,mdbrn-brn,occ dkbrn-crm,vfxl-micxln,grny/suc tex,oolitic,scat LS PCKST,crm-brn,micxln,dns,sl oolitic;fr-g oomold, decr introol POR,fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr strm-diff CUT"

6080.00 6100.00 "LS,med brn-brn,crm-dk brn ip,vfxl-micxln,suc/gran,oolitic,vsl anhy,oomoldic GRNST fabric; g oomold-fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

6100.00 6110.00 "LS,med brn-brn,crm-dk brn ip,vfxl-micxln,suc/gran,oolitic,vsl anhy,oomoldic GRNST fabric,scat LS PCKST,crm-tn,sl oolitic,dns; g oomold-fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

6110.00 6130.00 "LS,med brn-brn,crm-dk brn ip,vfxl-micxln,suc/gran,oolitic,vsl anhy,oomoldic GRNST fabric,scat LS PCKST,crm-tn,sl oolitic,dns; g oomold-fr intxl POR,even brn-spotty blk STN,even yel-gld FLOR,fr-g strm-diff CUT"

6130.00 6140.00 "LS GRNST,lt-md brn,occ crm-dk brn,mott,vfxl-mic xln,grny-suc tex,oolitic,vsl anhy,scat LS PCKST,off wht-crm-tn,dns,mhd,sl ool ip;fr-g oomold-sl intr ool&intxl POR,even brn-spotty blk STN,mod-dull yel gld FLOR,sl-fr strm CUT"

6140.00 6160.00 "LS GRNST,lt-md brn,mott,vfxl-mic xln,grny-suc tex,oolitic,vsl anhy,scat LS PCKST,off wht-crm-tn,dns,mhd,sl ool ip;pred g oomold-sl intr ool&intxl POR,even brn-spotty blk STN,mod-dull yel gld FLOR,sl-fr strm CUT"

6160.00 6180.00 "LS GRNST,lt-md brn,mott,vfxl-mic xln,grny-suc tex,oolitic,vsl anhy,scat LS PCKST,off wht-crm-tn,dns,mhd,sl ool ip;pred g oomold-incr intr ool&intxl POR,even brn-spotty blk STN,mod yel gld FLOR,fr strm CUT,g ODOR,sl FO"

6180.00 6200.00 "LS GRNST,lt-md brn,mott,vfxl-mic xln,grny-suc tex,oolitic,vsl anhy,scat LS PCKST,off wht-crm-tn,dns,mhd,sl ool ip; g oomold-g intr ool&intxl POR,even brn-spotty blk STN,mod yel gld FLOR,g strm-immed bloom CUT,g ODOR,incr FO"

6200.00 6220.00 "LS GRNST,lt-med brn-gr ip,vfxl-micxln,grny-suc tex,oolitic,sl anhy,scat LS PCKST,crm-tn-brn,mic-crypxln,dns,sl oolitic ip; fr-g oomoldic-intxl-scat oolicast POR,fr brn-scat blk STN,even dull-mod yel gld FLOR,sl strm-fr diff CUT"

DEPTH	LITHOLOGY

6220.00 6240.00 "LS GRNST,lt-med brn-gr ip,vfxl-micxln,grny-suc tex,oolitic,sl anhy,scat LS PCKST,crm-tn-brn,mic-crypxln,dns,sl oolitic ip; fr-g oomoldic-intxl-scat oolicast POR,fr brn-scat blk STN,even dull-mod yel gld FLOR,sl strm-fr diff CUT

6240.00 6250.00 "LS AA,POR-FLOR-STN CUT AA"

6250.00 6270.00 "LS mbrn,occ ltbrn-tn,dkbrn,gran-micxl-vfxl,occ crpxl,pred oolimoldic-occ ooliclastic GRNST/tr PCKST incl-occ scat frag,sl chky-anhy,rr ool,g oom-intxl POR,g-fr scat mod bri yel FLOR,g brn/tr dkbrn-blk STN,g dif-slow stmg mlky CUT"

6270.00 6280.00 "LS AA,pred oolimoldic-sl oliclastic GRNST/decr dns PCKST frag,sl chky-anhy,rr ool,POR-FLOR-STN-CUT AA"

6280.00 6300.00 "LS m-ltbrn,occ tn-crm,gran-micxl-micsuc,occ vfxl-crpxl,oolimoldic GRNST,vrr scat-intbd dns PCKST,sl-occ v chky,sl anhy/rr POR fl,vrr ool,g oom-intxl/rr pp vug POR,g-fr scat mod bri-bri yel FLOR,g brn-occ dkbrn/tr pp blk dd o STN,g dif/tr slow stmg CUT"

6300.00 6320.00 "LS AA,pred oom GRNST,rr scat-occ inbd dns PCKST,sl chky/tr POR fl,sl anhy,g oolimoldic-intxl POR,g -fr scat bri-mod bri yel FLOR,g brn-dkbrn/scat blk STN,g-fr slow stmg mlky CUT"

6320.00 6340.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oolimoldic,micxl-crpxl,oom GRNST/tr intbd dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool incl,vrr chky plty prtgs,g oom-intxl POR,g-fr spty mod bri-bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr slow stmg CUT"

6340.00 6360.00 "LS AA,oolimoldic GRNST,tr scat-occ inbd dns PCKST,sl chky/tr POR fl,sl anhy,rr ool incl,g oom-intxl POR,g-fr even spty bri-mod bri yel FLOR,g brn-dkbrn/scat blk STN,g-fr slow stmg mlky CUT"

6360.00 6380.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl,crpxl,oom GRNST/tr intbd dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr slow stmg mlky CUT"

6380.00 6400.00 "LS m-ltbrn,occ dkbrn,tn,crm-wh,gran-oom,micxl-vfxl,crpxl,oom GRNST/rr intbd dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g even mod bri-bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr slow-mod fast stmg mlky CUT"

6400.00 6420.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl-micsuc,crpxl,oom GRNST/tr intbd PCKST,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g scat mod bri/spty bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr slow stmg mlky CUT"

6420.00 6440.00 "LS AA,gran-oom,micxl-vfxl-sl micsuc,crpxl,oolimoldic GRNST,tr intbd-scat dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g brn-dkbrn/tr scat blk STN,g slow-mod fast stmg mlky CUT"

6440.00 6460.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oolimoldic,micxl-vfxl-sl micsuc,crpxl,ooilmoldic GRNST/tr PCKST AA,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g scat mod bri/spty bri yel FLOR,g brn-occ dkbrn/tr blk STN,g slow-mod fast stmg mlky CUT"

DEPTH	LITHOLOGY

6460.00 6480.00 "LS AA,gran-oolimoldic,micxl-vfxl,crpxl,oolimoldic GRNST/tr intbd dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr slow stmg mlky CUT"

6480.00 6500.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oolimoldic,micxl-vfxl,crpxl,oolimoldic GRNST/tr intbd dns PCKST,chky/tr POR fl,v sl anhy,rr ool,g oolimoldic-intxl POR,g scat mod bri/spty bri yel FLOR,g brn-occ dkbrn/scat blk STN,g-fr mod fast stmg mlky CUT"

6500.00 6510.00 "LS AA,pred oolimoldic GRNST/tr PCKST AA,sl chky/tr POR fl,v sl anhy,vrr ool,POR-FLOR,g brn-occ dkbrn/rr scat blk STN,CUT AA"

6510.00 6530.00 "LS m-ltbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl-sl micsuc,crpxl,oom GRNST/tr intbd dns PCKST,sl chky/tr POR fl,v sl anhy,rr ool incl,g oom-intxl POR,g scat mod bri-spty bri yel FLOR,g brn-dkbrn/rr pp blk STN,g-fr slow-mod fast stmg mlky CUT"

6530.00 6550.00 "LS lt-mbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl-sl micsuc,crpxl,oom GRNST/tr intbd PCKST,chky/tr POR fl,sl anhy,vrr ool,g oom-intxl POR,g scat mod bri/spty bri yel FLOR,g brn-ltbrn-occ dkbrn/tr scat blk STN,g-fr slow stmg mlky CUT"

6550.00 6560.00 "LS AA,oolimoldic GRNST/tr PCKST AA,sl chky/tr POR fl,sl anhy,vrr ool,POR-FLOR AA,g brn-occ dkbrn/tr scat blk STN,fr-g slow stmg CUT"

6560.00 6580.00 "LS m-ltbrn,tn,occ dkbrn,crm-wh incl,gran-oom,micxl-vfxl,crpxl,oolimoldic GRNST,rr intbd PCKST,incr chky/POR fl,sl anhy,rr ool,g oom-intxl/rr pp vug POR,g even mod bri/spty bri yel FLOR,g brn-ltbrn-occ dkbrn/scat blk STN,g mod fast-slow stmg mlky CUT"

6580.00 6590.00 "LS AA,oolimoldic GRNST/rr PCKST AA,chky/tr POR fl,sl anhy,POR-FLOR-STN-CUT AA"

6590.00 6600.00 "LS AA,oolimoldic GRNST/rr PCKST incl,sl chky/tr POR fl,v sl anhy,vrr ool,POR-FLOR AA,g ltbrn-brn-occ dkbrn/rr scat blk STN,g slow stmg mlky CUT"

6600.00 6620.00 "LS lt-mbrn,occ tn,dkbrn,crm-wh,gran-oom,micxl-vfxl-sl micsuc,crpxl,oom GRNST,tr intbd-scat PCKST/vrr ool incl,chky/occ POR fl,sl anhy,rr ool,g oom-intxl/rr pp vug POR,g even mod bri/spty bri yel FLOR,STN AA,g mod fast-slow stmg mlky CUT"

6620.00 6630.00 "LS AA,oolimoldic GRNST,tr intbd-scat dns PCKST,sl chky-anhy/rr POR fl,vrr trnsl xl ANHY,g oom-intxl POR,FLOR AA,g ltbrn-brn/scat dkbrn & tr blk STN,g mod fast-slow stmg CUT"

6630.00 6650.00 "LS AA,gran-oom,micxl-vfxl,crpxl,oolimoldic GRNST,tr-rr PCKST AA,chky/occ POR fl,sl anhy,rr ool,g oom-intxl/rr pp vug POR,g even mod bri/spty bri yel FLOR,STN AA,g mod fast-slow stmg mlky CUT"

6650.00 6660.00 "LS AA,oolimoldic GRNST/rr PCKST AA,chky/tr POR fl,sl anhy,POR-FLOR-STN-CUT AA

6660.00 6680.00 "LS lt-mbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl-sl micsuc,crpxl,oom GRNST/tr intbd PCKST,sl chky/tr POR fl,sl anhy,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g brn-ltbrn-occ dkbrn/tr scat blk STN,g-fr slow stmg mlky CUT"

6680.00 6690.00 "LS AA,oolimoldic GRNST/rr PCKST AA,chky/tr POR fl,sl anhy,POR-FLOR-STN-CUT AA"

DEPTH	LITHOLOGY

6690.00 6700.00 "LS AA,oolimoldic GRNST/rr PCKST AA,sl incr chky/tr POR fl,sl anhy,POR-FLOR-STN-CUT AA"

6700.00 6720.00 "LS AA,gran-oom,micxl-vfxl,crpxl,oolimoldic GRNST,tr-rr PCKST AA,sl incr chky/tr POR fl,sl anhy,rr ool,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g ltbrn-brn/occ dkbrn & tr blk STN,g mod fast-slow stmg mlky CUT"

6720.00 6740.00 "LS lt-mbrn,tn,occ dkbrn,tr crm-wh incl,gran-oom,micxl-vfxl,crpxl,oom GRNST/tr intbd PCKST,chky/tr POR fl,sl anhy,g oom-intxl POR,g scat mod bri/spty bri yel FLOR,g brn-ltbrn-occ dkbrn/tr scat blk STN,g-fr slow-mod fast stmg mlky CUT"

6740.00 6750.00 "LS AA,oolimoldic GRNST/rr PCKST AA,sl incr chky/tr POR fl,sl anhy,POR-FLOR-STN-CUT AA"

6750.00 6770.00 "LS AA,gran-oom,micxl-vfxl,crpxl,oolimoldic GRNST,tr-rr intbd-scat dns PCKST,chky/tr POR fl,sl anhy,rr ool,g oom-intxl POR,g even mod bri/spty bri yel FLOR,g ltbrn-brn/occ dkbrn & tr blk STN,g mod fast-slow stmg mlky CUT"

6770.00 6780.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6780.00 6800.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6800.00 6820.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6820.00 6830.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6830.00 6850.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6850.00 6860.00 "LS GRNST, medbrn-brn,oolitic AA + scat LS PCKST,crm-brn,dns AA; g oomold POR, STN,FLOR and CUT AA"

6860.00 6880.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6880.00 6900.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

DEPTH	LITHOLOGY

6900.00 6920.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6920.00 6930.00 "LS GRNST, medbrn-brn,oolitic AA + scat LS PCKST,crm-brn,dns AA; g oomold POR, STN,FLOR and CUT AA"

6930.00 6950.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6950.00 6970.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

6970.00 6980.00 "LS-oolitic GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,gran,rr LS PCKST,crm-brn,mic-cryptxln,dns,rr anhy; g-ex oomoldic-fr intxl POR,even brn-dk brn STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

6980.00 6990.00 "LS GRNST, medbrn-brn,oolitic AA + scat LS PCKST,crm-brn,dns AA; g oomold POR, STN,FLOR and CUT AA"

6990.00 7010.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,vsl anhy,tr intbd LS PCKST,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

7010.00 7030.00 "LS GRNST,med brn-brn,occ tn-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g-ex oomoldic-scat intxl POR,g even brn-dk brn STN,even mod-bri yel gld FLOR,fr-g strm-milky CUT"

7030.00 7050.00 "LS-oolitic GRNST,tn-med brn-brn,occ dk brn,vfxl-micxln,gran,rr LS PCKST,crm-brn,mic-cryptxln,dns,oolitic ip,rr anhy; g oomoldic-fr intxl/intr oolitic POR,even-spotty brn STN,even dull-mod yel gld FLOR,pr-fr strm-diff CUT"

7050.00 7070.00 "LS-oolitic GRNST,tn-med brn-brn,occ dk brn,vfxl-micxln,gran,rr LS PCKST,crm-brn,mic-cryptxln,dns,oolitic ip,rr anhy; g oomoldic-fr intxl/intr oolitic POR,even-spotty brn STN,even dull-mod yel gld FLOR,pr-fr strm-diff CUT"

7070.00 7090.00 "LS GRNST,tn-med brn-brn,occ dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g oomoldic-introol-scat intxl POR,g-fr even brn-dk brn STN,even mod yel gld FLOR,sl-fr strm-milky diff CUT"

7090.00 7100.00 "LS GRNST,tn-med brn-brn,oolitic AA + LS PCKST,crm-tn-brn,dns,sl anhy,AA, omoldic-introol-intxl POR AA,STN,FLOR & CUT AA"

7100.00 7120.00 "LS-oolitic GRNST,tn-med brn-brn,occ crm-dk brn,mottled ip,vfxl-micxln,gran,rr LS PCKST,crm-brn,mic-cryptxln,dns,oolitic ip,rr anhy; g oomoldic-fr intxl/intr oolitic POR,even-spotty brn STN,even dull-mod yel gld FLOR,pr-fr strm-diff CUT"

DEPTH	LITHOLOGY

7120.00 7140.00 "LS GRNST,tn-med brn-brn,occ dk brn-crm,mottled ip,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g oomoldic-introol-scat intxl POR,g-fr even brn-dk brn STN,even mod yel gld FLOR,sl-fr strm-milky diff CUT"

7140.00 7150.00 "LS GRNST,tn-med brn-brn,occ crm-dk brn,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;g oomoldic-introol-scat intxl POR,g-fr even brn-dk brn STN,even mod yel gld FLOR,sl-fr strm-milky diff CUT"

7150.00 7170.00 "LS GRNST,tn-med brn-brn,occ dk brn-crm,mottled ip,vfxl-micxln,oolitic,tr intbd LS PCKST,crm-tn-brn,dns,sl anhy,oolitic ip;pri g oomoldic-decr introol-scat intxl POR,g-fr even brn-dk brn STN,even mod yel gld FLOR,sl-fr strm-milky diff CUT"

7170.00 7190.00 "LS GRNST,tn-med brn-brn,oolitic AA + LS PCKST,crm-tn-brn,dns,sl anhy,AA, omoldic-introol-intxl POR AA,STN,FLOR & CUT AA"

7190.00 7210.00 "LS,oolitic GRNST,tn-med brn-brn,occ dk brn,vfxl-micxln,gran,vsl anhy,rr LS PCKST,crm-brn,dns,oolitic ip,sl anhy; g oomolic-scat introol/intxl POR,brn-dk brn-spotty blk STN,even dull-mod yel gld FLOR,fr strm-diff flash CUT"

7210.00 7230.00 "LS,oolitic GRNST,crm-med brn-brn,mottled,vfxl-micxln,gran,vsl anhy,incr LS PCKST,crm-brn,dns,oolitic ip,sl anhy;fr-g oomolic-scat introol/intxl POR,spotty brn-occ blk spottty STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

7230.00 7250.00 "LS,oolitic GRNST,crm-med brn-brn,mottled,vfxl-micxln,gran,vsl anhy,com LS PCKST,crm-brn,dns,oolitic,sl anhy;decr mtrxPOR,spotty brn-occ blk spottty STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

7250.00 7260.00 "LS,oolitic GRNST,crm-med brn-brn,mottled,vfxl-micxln,gran,vsl anhy,com LS PCKST,crm-brn,dns,oolitic,sl anhy;decr mtrxPOR,spotty brn-occ blk spottty STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

7260.00 7280.00 "LS,oolitic GRNST,crm-med brn-brn,mottled,vfxl-micxln,gran,vsl anhy,com LS PCKST,crm-brn,dns,oolitic ip,sl anhy;fr-g oomolic-scat introol/intxl POR,spotty brn-occ blk spottty STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

7280.00 7300.00 "LS,oolitic GRNST,crm-med brn-brn,mottled,vfxl-micxln,gran,vsl anhy,incr LS PCKST,crm-brn,dns,oolitic ip,sl anhy;fr oomolic-introol/intxl POR,spotty brn-occ blk spottty STN,even dull-mod yel gld FLOR,fr strm-diff CUT"

7300.00 7320.00 "LS lt-mbrn,occ dkbrn,tn,crm,vfxl-gran-crpxl,occ micxl-micsuc,pred GRNST occ oolimoldic-sl oolitic ip,tr scat-intbd dns PCKST,chky-sl anhy,rr xl ANHY frag,g-fr intxl-occ oom POR,g-fr scat mod bri-bri yel FLOR,fr-g ltbrn-brn/tr dkbrn & blk STN,g dif CUT"

7320.00 7330.00 "LS AA,LS GRNST/scat-occ intbd dns PCKST,incr chky/tr POR fl,sl anhy/rr xln ANHY frag,fr-g intxl-tr oom POR,fr scat mod bri-occ bri yel FLOR,fr-g ltbrn-brn/tr dkbrn STN,rr blk STN,g dif/tr slow stmg mlky CUT"

7330.00 7350.00 "LS AA,LS GRNST,tr PCKST AA,chky/tr POR fl,sl ANHY/rr xln ANHY frag,POR-FLOR-STN-CUT AA"

DEPTH	LITHOLOGY

7350.00 7360.00 "LS m-ltbrn,occ dkbrn,wh,tn,vfxl-micxl-gran,occ oolimoldic,micsuc-crpxl,GRNST occ oolimoldic-tr dns strk,tr scat-intbd dns -chky plty PCKST,sl decr chk/tr POR fl,sl anhy,POR-FLOR AA,g brn-ltbrn/incr dkbrn-vrr blk STN,g mod fast stmg mlky CUT"

7360.00 7370.00 "LS tn-crm-wh,ltbrn-occ mbrn,tr dkbrn,vfxl-gran,micxl-crpxl,occ oom,GRNST AA/PCKST AA,chky-anhy AA,scat tn-crm CHT frag,POR-FLOR AA,decr STN AA,fr slow stmg CUT"

7370.00 7390.00 "LS tn-crm-wh,rr lt-mbrn,crpxl-micxl,occ vfxl-gran,sl oom,dns GRNST grdg to gran PCKST,v chky-sl anhy/tr xln ANHY,tr-rr CHT AA,tr ool incl,cln,tt-tr intxl-rr oom POR,fr scat mod bri-tr spty bri yel FLOR,no-tr ltbrn STN,fr dif-tr slow stmg CUT"

7390.00 7400.00 "LS AA,incr grdg to PCKST,POR-FLOR-STN-CUT AA"

7400.00 7410.00 "LS AA,crpxl-micxl,occ vfxl-gran,dns PCKST/tr GRNST frag,chky-sl anhy/rr xln ANHY,tr trnsl-bf CHT,rr ool incl,tt-tr intxl-vrr oom POR,tr-rr scat mod bri-spty bri yel FLOR,no-tr ltbrn-rr brn STN,fr dif-tr slow stmg CUT"

7410.00 7430.00 "LS tn-lt-mbrn,crm-wh,occ dkbrn,crpxl-micxl,occ vfxl-gran,tr oom,pred dns chky PCKST/sl incr GRNST,sl anhy/tr xln ANHY,tr CHT AA,tr ool incl,POR AA/tr POR fl,tr scat mod bri-spty bri yel FLOR,tr ltbrn-rr brn STN,fr dif-tr slow stmg CUT"

7430.00 7443.00 "LS tn-crm-wh,occ lt-mbrn,crpxl-micxl-vfxl,occ gran-oom,pred chky dns PCKST/tr scat sl oom GRNST,sl anhy/rr xln ANHY,tr CHT AA,rr ool incl,tt-tr intxl-rr oom POR,tr scat dull-mod bri/vrr spty bri yel FLOR,fr-g ltbrn-tr brn STN,fr dif-tr slow stmg CUT"

FORMATION TOPS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #21-14 SE 1-A HORIZONTAL LATERAL LEG #1

FORMATION NAME		SAMPLES MEASURED DEPTH	SAMPLES TRUE VERTICAL DEPTH	DATUM KB:4978'
LOWER ISMAY		5672'	5670'	-692'
GOTHIC SHALE		5730'	5716'	-738'
DESERT CREEK		5746'	5726'	-748'
DC 1-A ZONE		5768'	5737'	-759'

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Mobil Exploration and Production U.S. Inc., Ratherford Unit #21-14 Southeast Horizontal Lateral Leg 1 was a re-entry of the Mobil Ratherford Unit #21-14 located in Section 21, T41S, R23E. The southwest Lateral Leg #1 was begun on October 15, 1997'. The curve section was completed on October 17, 1997 at a measured depth of 5820', 5747' true vertical depth, 10 feet into the 1-A porosity and the lateral section was begun in the 1-A porosity zone. The lateral reached a measured depth of 7680', true vertical depth of 5477', with a horizontal displacement of 1500' and true vertical plane of 133.9 degrees, on October 19, 1997 in the upper Desert Creek 1-A zone. There were no mechanical problems encountered while drilling this lateral. There were no water flows while drilling the lateral, but significant quantities of oil and gas were produced starting at a measured depth of about 6150', vertical section of 470'. The oil and gas production appeared to be from practically virgin reservoir, probably beyond the flushed zone of this injection well. This lateral used fresh water and then an oil and water emulsion with polymer sweeps as the drilling fluid. The background gases noted on the accompanying mud log were quite low until the 6150' depth where moderately high to high background gases were noted for the remainder of the lateral section. The samples had good oil shows from the measured depth of 6150' through total depth. Sample shows prior to this depth were primarily flushed with more black staining in the samples.

The primary objective of the Ratherford Unit #1-34 Leg 1 horizontal lateral was the effective porosity, staining and reservoir properties in the 1-A zone of the Desert Creek Member of the Upper Paradox Formation. The lower portion of the Upper Ismay, the Lower Ismay, the Gothic Shale and the transition zone at the top of the Desert Creek were penetrated while drilling the curve section. The curve was landed 10 feet into the 1-A porosity horizon. Kick off point for this lateral was at a measured depth of 5630', 5628.82' true vertical depth, in the Upper Ismay member of the Paradox Formation.

The Upper Ismay seen in the curve section of this well was predominately white to tan, occasionally cream to light gray, cryptocrystalline to microcrystalline, chalky to clean and slightly argillaceous to occasionally silty limestone with scattered anhydrite crystals and occasional fracture filling. Dark brown to smoky gray chert fragments and thin interbeds of dark gray to black shale were noted in the section. No porosity, no staining or fluorescence and no gas increases were noted. The Hovenweep marker between the Upper Ismay and Lower Ismay was very poorly developed to non-existent in this lateral.

The top of the Lower Ismay was picked at 5672' measured depth, 5670' true vertical depth, and was based primarily on the slight change in lithology as well as comparison to the well log for the original well bore. The upper 30 feet of the Lower Ismay was predominately limestone, brown to gray to cream in part, slightly mottled, microcrystalline to cryptocrystalline, dense to slightly chalky, slightly fossiliferous with scattered tan translucent chert and rare black carbonaceous shale partings. No shows were noted in these limestones. From 5700' measured depth, 5693' TVD, to 5720' measured depth, interbedded cream to white, very fine grained sandstones grading to siltstones were noted. These sandstones and siltstone had calcite cementation and rare fossil remnants and displayed no shows. The basal portion of the Lower Ismay from 5720' to the top of the Gothic Shale was a cream to tan to light brown limestone, slightly anhydritic, dense to chalky to silty textured with associated micro pyrite and no shows.

The top of the Gothic Shale was encountered at 5730' measured depth, 5716' true vertical depth and was predominantly gray brown to black, silty, carbonaceous, soft to moderately firm, calcareous to slightly dolomitic and slightly micaceous. Scattered within the Gothic were very thin, crypto to microcrystalline, earthy, limestone and dolomite partings and inclusions, with very rare scattered anhydrite crystals. Both the top and the base of the Gothic were fairly abrupt with a decrease in penetration rate noted throughout. The top of the Gothic was marked by an abrupt increase in shale in the samples

The top of the Desert Creek is commonly picked at the Gothic Shale to transition zone facies change, which in this lateral occurred at a measured depth of 5746' and a true vertical depth of 5726' and was marked by a significant increase in penetration rate and occurrence of limestones in the samples. The lithology of the transition zone in this well was primarily limestone, off white to cream to tan, mottled, microcrystalline, platy, argillaceous to sandy in part, oolitic in part and slightly anhydritic with occasional carbonaceous shale partings. Of interest was the sample from 5760-70' measured depth which displayed abundant green cement. Talking with the engineer, it appears that at least two of the squeeze jobs performed on the well during preparation for the re-entry were lost with no returns. It appears that they ended up in this horizon just above the top of the 1-A porosity.

The top of the Desert Creek 1-A zone was picked at 5768' measured depth, 5737' true vertical depth and was based on sample identification as well as the usual significant increase in the penetration rate. The top of the 1-A zone was approximately 4' low to the top on the porosity log for the 21-14 well. The 1-A zone was primarily an oolitic grainstone, tan to medium brown, very fine to micro-crystalline with a grainy to sucrosic texture, rare anhydrite crystals and inclusions and displayed well developed oomoldic fabric porosity with secondary inter-crystalline to minor oolicastic porosity development. Dark brown to spotty black staining was noted in the samples with spotty yellow gold fluorescence and fairly slow streaming to milky cuts were noted when the zone was first penetrated. Interbedded with the oolitic grainstones were thin, tight, dense limestone packstones, white to cream to tan in color with no to very slight inter-crystalline porosity development and slight to no staining.

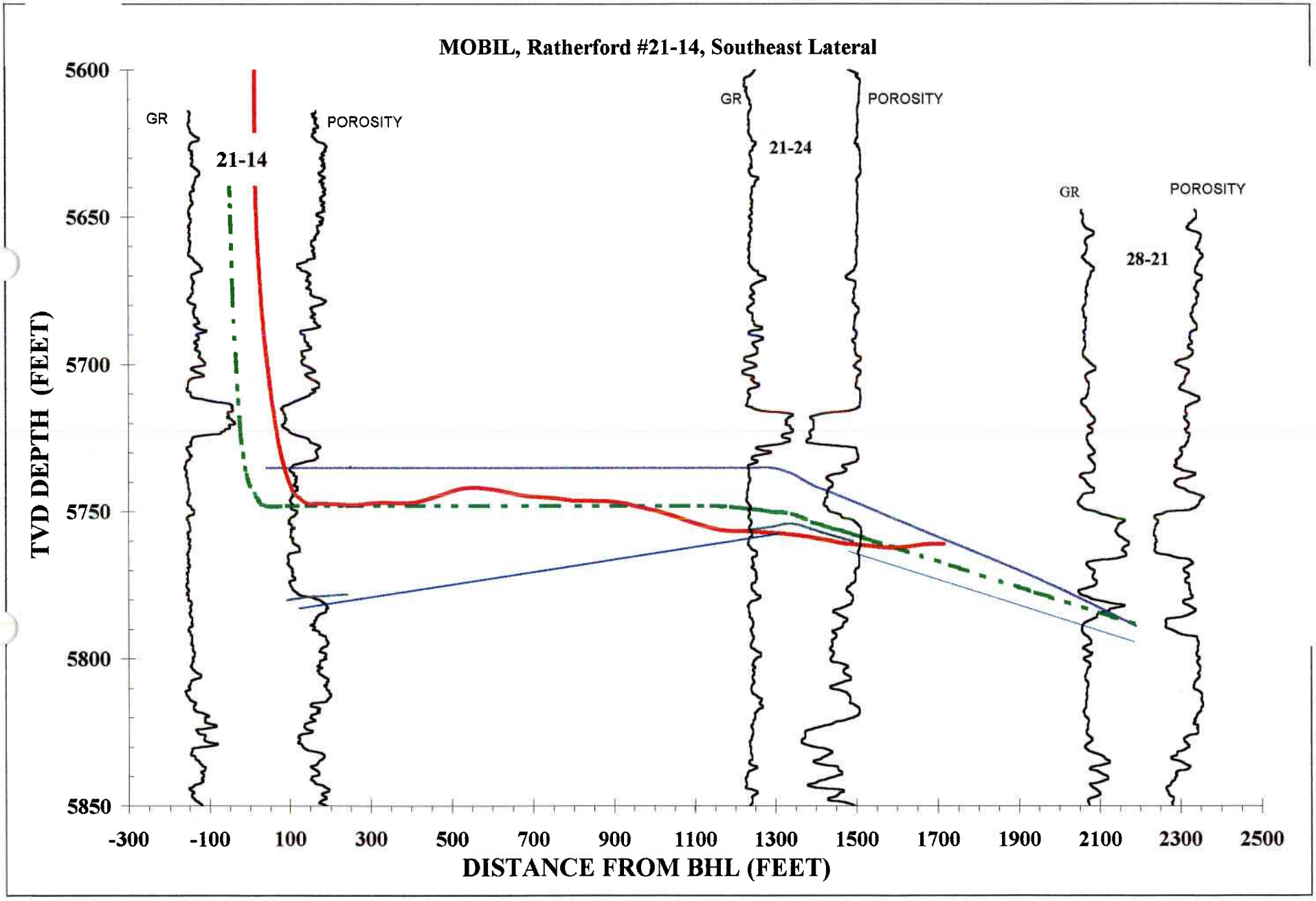
The curve section was completed at a measured depth of 5820', 55747' true vertical depth, and a vertical section (horizontal displacement) of 140.82', in the oolitic limestone grainstone porosity, almost exactly on the proposed target line. The lateral section was drilled through out its length in the porosity zone of the 1-A. The lithology of the 1-A porosity zone through out its length in the lateral remained fairly consistent with very minor variations of porosity type and rock classification being noted. From a measured depth of 5820' to a measured depth of 7353', 5761' true vertical depth, and a horizontal section of 1671, the lithology of the 1-A was a light to medium brown, occasionally dark brown, microcrystalline to very finely crystalline, microsucrosic, oolicastic to oomoldic limestone grainstone. It had very rare scattered anhydrite crystals to inoculations, very rare scattered algal material, and thin cream to tan, cryptocrystalline to microcrystalline, limestone packstone inclusions to laminations.

The 1-A porosity zone had good visible porosity and a good sample show through its length. Of note was that the well flow water, oil and gas, at a rate of up to 27 barrels of fluid an hour. The fluid ranged from approximately 10% to 40% oil, and the rest water. At the top of the 1-A, the limestones became a cream to tan, tight, cryptocrystalline, platy limestone packstone, with an increase in chert fragments and a marked decrease in visible porosity, as well as a decrease in the sample show. The base of the 1-A was not encountered while drilling the lateral section. The top of the 1-A zone was encountered at a measured depth of 7353', with a true vertical depth of 5761', and a horizontal displacement of 1671'.

From a measured depth of 7353' to 7443', true vertical depth of 5761' and a horizontal displacements of 1762' a decrease in porosity and penetration rate was noted, as the well bore penetrated the tight limestone packstone above the 1-A porosity. The well path was slowly turned downward to intersect the best porosity, and at this time the decision to terminate the lateral was made. The decision to terminate the lateral was based on the amount of horizontal section needed to possible reacquire the top of the 1-A porosity zone and the possible amount of lateral porosity left after regain the porosity prior to termination at 1900' of horizontal section. The lithology and penetration rate remained very constant and consistent to the termination of the lateral at a measured depth of 7443', 5761' true vertical depth, and a horizontal displacement of 1762', on October 19, 1997.

In tracking the well bore through the 1-A porosity bench, the intercrystalline to oolicastic to oolmoldic and minor algal porosity was very good with only vertical changes in rock classification, from predominately intercrystalline and oolitic porosities in the limestone grainstones to tight limestone packstones near and in the top of the 1-A zone. Sample shows were predominated good and stayed fairly consistent throughout the length of the lateral, except when the lateral neared and penetrated the top of the 1-A zone. The background gases began high in the lateral section, until reaching 1683' of horizontal displacement, then dropped gradually to the end of the lateral. The effective or better porosity was associated with the oolicastic and oolmoldic to very minor algal limestone grainstone facies, which had fair to good, intercrystalline, and algal to oolitic porosities. Minor anhydrite plugging was noted throughout. The well produced significant amounts of water, oil and gas while drilling the 1-A zone.

ROCKY MOUNTAIN GEO-ENGINEERING CORP. 2450 INDUSTRIAL BLVD. GRAND JUNCTION, CO 81505 (970) 243-3044



Form 3160-4
(July 1992)

RECEIVED DEC 29 1997 DIV. OF OIL, GAS & MINING

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-603-355

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

8. FARM OR LEASE NAME, WELL NO.: RATHERFORD 21-14

9. API WELL NO.: 43-037-15753

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 21, T41S, R24E

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other X SIDETRACK

2. NAME OF OPERATOR: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM

3. ADDRESS AND TELEPHONE NO.: P.O. Box 633, Midland TX 79702 (915) 688-2585

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: SW/SW 660 FSL & 460 FWL
At top prod. interval reported below: BHL: LATERAL #1, 942' FNL & 697' FWL/SURFACE LOCATION (TD 6970')
At total depth: * #37

14. PERMIT NO.:
DATE ISSUED:

12. COUNTY OR PARISH: SAN JUAN

13. STATE: UT

15. DATE SPUDDED: 10-01-97

16. DATE T.D. REACHED: 10-22-97

17. DATE COMPL. (Ready to prod.): 10·30·97

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*:

19. ELEV. CASINGHEAD:

20. TOTAL DEPTH, MD & TVD: * #37

21. PLUG, BACK T.D., MD & TVD: * #37

22. IF MULTIPLE COMPL., HOW MANY*:

23. INTERVALS DRILLED BY: ROTARY TOOLS: X CABLE TOOLS:

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: * #37 DSCR

25. WAS DIRECTIONAL SURVEY MADE: YES

26. TYPE ELECTRIC AND OTHER LOGS RUN: NO

27. WAS WELL CORED: NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8"	27#	168'		CIRC	
8 5/8"	24#	1692'		CIRC	
5 1/2"	14 & 15.5#	5952'			
ORIGINAL	CASING	UNDISTURBED			

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"		5567'

31. PERFORATION RECORD (Interval, size and number)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION:

PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump):

WELL STATUS (Producing or shut-in): SHUT-IN

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.):

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: DIRECTIONAL SURVEY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Sue Moseley for TITLE SHIRLEY HOUCHINS/ENV & REG TECH DATE 12-18-97

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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 jurisdicton.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
AT TOTAL DEPTH			BHL: LAT #2 1009' FSL & 1441' FEL/SURF SPOT
* #20 & #21			LATERAL #2 (5747-5761' TMD)(5820-7443' TMD)

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE: 1992-774-672

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other SIDETRACK	[ ] Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

BHL: LATERAL #2 1009' FSL & 1441' FEL OF SURFACE LOCATION.

SEE ATTACHED

14. I hereby certify that the foregoing is true and correct
Signed Sue Moseley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 12-18-97

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side

01/24/98
JRB

DRILLED FOOTAGE CALCULATION FOR DIRECTIONAL AND HORIZONTAL WELLS

Well Name: Ratherford 21-14
Surface Location: 660 ' FSL, 460' FWL, Sec. 21, T. 41S, R. 24E

First leg description: Lateral #2

KOP MD:	5622.00
KOP TVD:	5621.84
EOL MD:	7443.00
EOL TVD:	5761.40
Footage drilled:	1821.00

Second leg description:

KOP MD:
KOP TVD:
EOL MD:
EOL TVD:
Footage drilled:

Third leg description:

KOP MD:
KOP TVD:
EOL MD:
EOL TVD:
Footage drilled:

Fourth leg description:

KOP MD:
KOP TVD:
EOL MD:
EOL TVD:
Footage drilled:

Fifth leg description:

KOP MD:
KOP TVD:
EOL MD:
EOL TVD:
Footage drilled:

Total Footage Drilled (MD):	***1821.00***
Deepest point (TVD):	***5762.21***

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT - WELL #21-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH

10-01-97	MIRU NAVAJO WEST #36 PULLING UT. SITP @ 1300 WAS 2100 PSI, SICP @ 1300 WAS 0 PSI. RU PUMP & PIT. RU CHART & TEST CSG TO 1000 PSI. 30 MIN. LEAKED 160 PSI. IN 30 MIN. RU TO FLOWLINE. FLOW WELL DOWN PRODUCTION LINE OVER NIGHT. CALLED NAVAJO EPA @ 1600 ON 9-22-97 TALKED TO ANSWERING MACHINE. INFORMED OF INTENT TO DIG & LINE PIT.CALLED BLM AT 08:40 9-30-97 TALKED TO MARK KELLY INFORMED OF IMPENDING INTENT TO PREP. WELL FOR DRILLING RIG. OK.
10-02-97	FLOW TBG PRESSURE @ 7:30 WAS 1100 PSI. RU TO PUMP & KILL TBG. NIPPLE DOWN PROD. HEAD. NIPPLE UP BOPE. RELEASE PKR. WORK PKR UP HOLE 110'. PACKER SEAL ELEMENTS WOULD NOT RELEASE DUE TO PRESSURE BUILD UP UNDER PKR. SWIFN. RIG REPAIRS.
10-03-97	SITP @ 7:30 WAS 500 PSI. MIRU BASIN WIRELINE UT. RIH W/COLLAR LOCATOR & PERF GUN. LOCATE PKR @ 5576'. SHOT 4 CIRC. HOLES @ 5565'. POH. RDMO BASIN WIRELINE UT. RIG UP TO RIG PUMP, KILL WELL. WORK PKR. FREE. POH & LAY DOWN CMT. LINED TBG TO 1500' WELL START FLOWING, SET PKR, SIFN.
10-04-97	SITP @ 7:30 WAS 50 PSI. RU & KILL WELL, WELL DEAD, FINISH OUT OF HOLE W/CMT LINED TBG & PKR. PICK-UP & RIH W/ARROW PKR & BRIDGE PLUG TO 5649'. WOULD NOT SET. SIFN.
10-05-97	SICP @ 7:30 WAS 0 PSI. PICK-UP OVERSHOT FOR BRIDGE PLUG. RIH TO 5745'. LATCH ONTO BRIDGE PLUG, WORK FROM OPEN HOLE. POH & LAY DOWN BRIDGE PLUG & FISHING TOOLS. SIFN.
10-06-97	SICP @ 7:30 WAS 0 PSI. MIRU BASIN WIRELINE UT. RIH W/GUAGE RING TO 5760'. RIH W/GAMMA RAY, CAG. COLLAR LOG TO 5660'. LOG F/5660-5300'. POH RIH W/BRIDGE PLUG TO 5645'. SET. POH RIH W/PKR TO 5596'. DISIPLACE HOLE, TEST RPT TO 1000#, HELD 30 MIN TEST CSG TO 1000# HELD 45 MIN. 30 IN W/CHART UNSET PKR. SIFN.
10-07-97	14 HR SIP = 0 RU PUMP & CHART TEST CSG TO 1000# HELD FOR 30 MINS. TOH LAY DOWN W/S & PKR. ND BOP & HYDRIL NU BLANK FLANGE PREP FOR TBG HEAD CHANGE. SI & SDFN.
10-08-97	REMOVE BLANK FLANGE & TBG HEAD WELD ON 3 11/16" PIECE OF 5 1/2" CSG ON CSG STUB INSTALL NEW TBG HEAD TEST TO 1500# HELD REINSTALL BLANK SI & RIG DOWN. FINAL PREP.
10-14-97	MIRU NAVAJO WEST RIG #25 (NOTIFIED STATE OF UTAH ABOUT MOVING IN). RIG REPAIRS. TEST BOP STACK. TIH W/DC'S & DP OE TO 5500.
10-15-97	FINISH PICKING UP & TALLY 2 7/8" AOHDP TO 5600' POH W/AOHDP & DRILL COLLARS. (PREPARE TO PU WHIPSTOCK) FINAL REPORT FOR RE-ENTRY.
10-15-97	TIH W/BTM. TRIP WHIPSTOCK. RU & RIH W/GYRO. UNABLE TO GET GYRO BELOW DC'S, POOH W/WHIPSTOCK, FOUND OBSTRUCTION. TIH AGAIN. RU GYRO/ORIENT WHIPSTOCK & SET. RD WL. SHEAR OFF WHIPSTOCK & MILL F/5622-5624' W/STARTING MILL. (CUT WINDOW 5622-5624') LATERAL #2.

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT - WELL #21-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH
PAGE 2

10-16-97	TOOH W/STARTING MILL & REPLACE W/CSG. & WATERMELON MILL. TIH TO TOP OF WINDOW. RU POWER SWIVEL, BREAK CIRC. MILL WINDOW F/5624-5629' + 1 FT. FORMATION TO 5130'. CIRC. BTMS UP. HANG SWIVEL BACK, LAY DOWN AOHDP. POOH W/MILLS & LAY DOWN SAME. PREPARE TO PU CURVE BUILDING ASSY. FINAL REPORT LATERAL #2
10-17-97	PU CURVE BUILDING ASSY. TIH & DRILL CURVE SECTION F/5630-5790'.
10-18-97	TD CURVE SECTION IN DC ZONE 1A @ 5820 MD, 5747 TVD, VS 140.82. CIRC HIGH MUD SWEEP TO SURFACE. POOH LAYING DOWN AOHDP & CURVE BUILDING ASSY. PU LAT. BUILDING ASSY. TIH & DRILL F/5820-6270.
10-19-97	SLIDE/ROTATE DRILL & SURVEY F/6270-7350'. (DISPLACE HOLE, TO REDUCE FLUID INTRUSION).
10-20-97	SLIDE/ROTATE DRILL F/7350-7443'TD. KILL WELL POH TO DC'S. WELL FLOWING/KILL. FINISH OUT OF HOLE LAYING DOWN SPERRY SUN TOOLS. RU WL. RIH W/RBP & SET @ 5580'.
10-21-97	POH & RIGGED DOWN BASIN WIRELINE. CHECK WELL. RIH W/DP, DISPLACED DRILLING MUD, POH & LD DP, DC, PH6, ND BOP, CLEAN PITS.
10-22-97	RD & WAIT ON DAYLIGHT TO MOVE TO RATHERFORD #20-34.

COMPLETION

10-28-97	MIRU NAVAJO WEST RIG #15.
10-29-97	SICP @ 7:30 WAS 0 PSI. NIPPLE DOWN WELL HEAD CAP. NIPPLE UP BOPE. PICK-UP RETV HEAD FOR BRIDGE PLUG, RUN PKR ON 2.875" TBG. TO 5580'. RELEASE BRIDGE PLUG, SET PKR @ 5567'. RIG UP FLOW LINE. SIFN.
10-30-97	SITP @ 7:30 WAS 1650 PSI. OPEN TO FLOWLINE ON .75 CHOKE. RDMO NAVAJO WEST RIG #15. WELL SHUT IN FOR DRILLING OF NEAR-BY WELL.

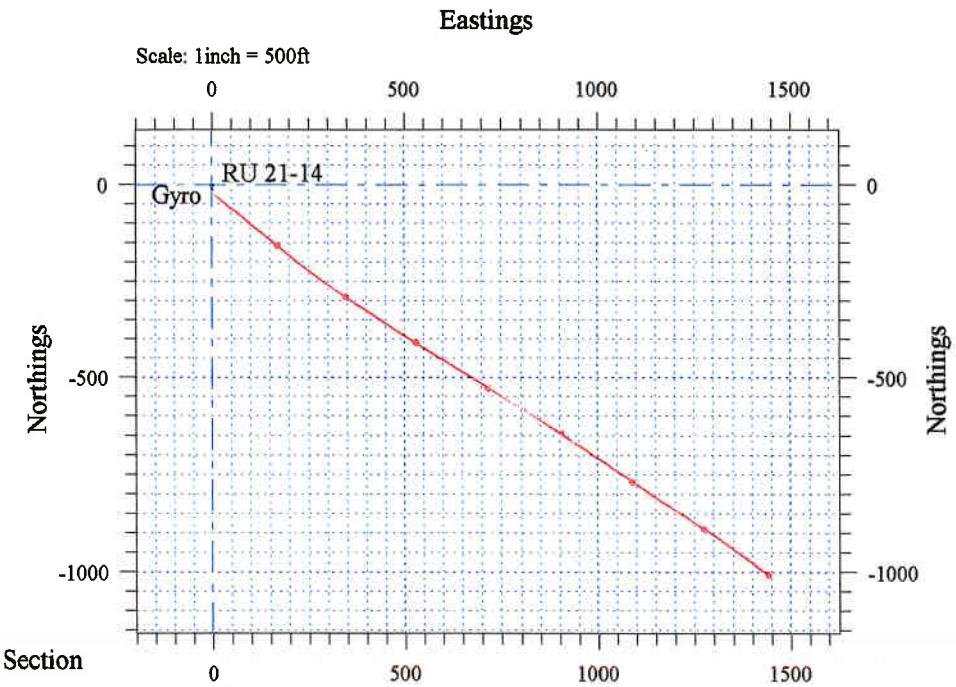
Sperry-Sun DRILLING SERVICES

Well: RU 21-14

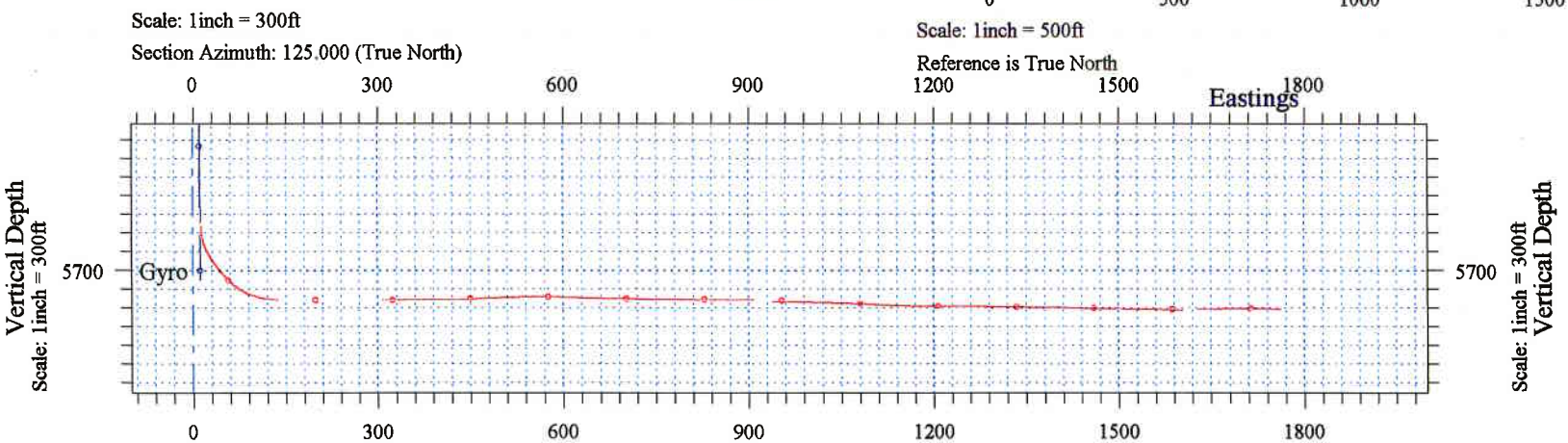
DrillQuest

Customer: Mobil
Folder: Mobil
Field: San Juan County
Project: Utah
Structure: Ratherford Unit
Well: RU 21-14

Mobil



Vertical Section



Vertical Section

Prepared:	Checked:	Approved:

Sperry-Sun
DRILLING SERVICES
A DRESSER INDUSTRIES, INC. COMPANY

Mobil
San Juan County
Utah
Ratherford Unit
RU 21-14 - MWD Surveys

SURVEY REPORT

13 November, 1997

Survey Ref: svy2166

Sperry-Sun Drilling Services

Survey Report for RU 21-14

Mobil
San Juan County

Utah
Ratherford Unit

	Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro								
	0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
	100.00	0.410	132.171	100.00	0.24 S	0.27 E	0.35	0.410
	200.00	0.380	131.731	200.00	0.70 S	0.78 E	1.04	0.030
	300.00	0.410	129.391	299.99	1.15 S	1.30 E	1.73	0.034
	400.00	0.400	123.071	399.99	1.57 S	1.87 E	2.43	0.046
	500.00	0.360	120.531	499.99	1.92 S	2.43 E	3.09	0.043
	600.00	0.400	123.801	599.99	2.27 S	2.99 E	3.76	0.045
	700.00	0.420	121.811	699.98	2.66 S	3.60 E	4.47	0.025
	800.00	0.430	40.361	799.98	2.56 S	4.15 E	4.87	0.555
	900.00	0.430	79.441	899.98	2.21 S	4.76 E	5.17	0.288
	1000.00	0.210	230.401	999.98	2.26 S	4.99 E	5.38	0.622
	1100.00	0.210	7.831	1099.98	2.19 S	4.87 E	5.25	0.391
	1200.00	0.260	339.581	1199.98	1.80 S	4.82 E	4.98	0.125
	1300.00	0.290	299.531	1299.98	1.46 S	4.52 E	4.54	0.190
	1400.00	0.300	296.751	1399.98	1.22 S	4.07 E	4.03	0.017
	1500.00	0.520	294.791	1499.97	0.91 S	3.42 E	3.32	0.220
	1600.00	0.540	295.311	1599.97	0.52 S	2.58 E	2.41	0.021
	1700.00	0.550	298.671	1699.96	0.09 S	1.74 E	1.47	0.033
	1800.00	0.560	294.351	1799.96	0.34 N	0.87 E	0.51	0.043
	1900.00	0.520	285.031	1899.96	0.66 N	0.01 W	-0.39	0.096
	2000.00	0.360	260.331	1999.95	0.73 N	0.76 W	-1.04	0.245
	2100.00	0.400	249.651	2099.95	0.55 N	1.40 W	-1.46	0.081
	2200.00	0.430	227.651	2199.95	0.18 N	2.00 W	-1.74	0.161
	2300.00	0.430	220.761	2299.95	0.36 S	2.53 W	-1.86	0.052
	2400.00	0.530	214.201	2399.94	1.02 S	3.03 W	-1.90	0.114
	2500.00	0.620	217.691	2499.94	1.83 S	3.62 W	-1.91	0.097
	2600.00	0.490	128.691	2599.93	2.53 S	3.62 W	-1.51	0.784
	2700.00	0.710	141.001	2699.93	3.28 S	2.90 W	-0.49	0.254
	2800.00	1.050	161.881	2799.92	4.63 S	2.22 W	0.84	0.462
	2900.00	0.870	160.511	2899.90	6.22 S	1.68 W	2.19	0.181
	3000.00	0.300	129.451	2999.90	7.10 S	1.23 W	3.07	0.632
	3100.00	0.210	116.181	3099.90	7.35 S	0.86 W	3.51	0.107
	3200.00	0.150	128.421	3199.90	7.51 S	0.59 W	3.82	0.071
	3300.00	0.240	139.761	3299.89	7.75 S	0.36 W	4.15	0.097
	3400.00	0.560	166.431	3399.89	8.39 S	0.11 W	4.72	0.362
	3500.00	0.670	169.661	3499.89	9.44 S	0.11 E	5.51	0.115
	3600.00	0.650	152.151	3599.88	10.51 S	0.48 E	6.43	0.202
	3700.00	0.760	152.861	3699.87	11.60 S	1.05 E	7.52	0.110
	3800.00	0.520	155.101	3799.87	12.61 S	1.55 E	8.50	0.241
	3900.00	0.650	162.441	3899.86	13.56 S	1.91 E	9.34	0.150

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 21-14

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
4000.00	0.620	175.961	3999.85	14.64 S	2.12 E	10.13	0.152
4100.00	0.560	201.501	4099.85	15.63 S	1.98 E	10.59	0.267
4200.00	0.310	222.061	4199.85	16.29 S	1.62 E	10.67	0.291
4300.00	0.090	279.401	4299.85	16.48 S	1.36 E	10.56	0.272
4400.00	0.070	8.281	4399.85	16.40 S	1.29 E	10.46	0.113
4500.00	0.120	15.001	4499.85	16.24 S	1.32 E	10.40	0.051
4600.00	0.080	48.471	4599.85	16.09 S	1.40 E	10.38	0.069
4700.00	0.040	146.271	4699.85	16.08 S	1.47 E	10.43	0.094
4800.00	0.100	249.341	4799.85	16.14 S	1.41 E	10.41	0.116
4900.00	0.230	214.601	4899.85	16.33 S	1.22 E	10.37	0.158
5000.00	0.200	191.101	4999.84	16.67 S	1.07 E	10.44	0.092
5100.00	0.250	191.721	5099.84	17.05 S	0.99 E	10.59	0.050
5200.00	0.210	172.991	5199.84	17.45 S	0.97 E	10.80	0.085
5300.00	0.190	207.301	5299.84	17.78 S	0.92 E	10.95	0.120
5400.00	0.050	133.171	5399.84	17.96 S	0.87 E	11.01	0.183
5500.00	0.220	162.331	5499.84	18.17 S	0.96 E	11.21	0.178
5600.00	0.420	163.821	5599.84	18.70 S	1.12 E	11.65	0.200
MWD Surveys							
5622.00	0.360	153.320	5621.84	18.84 S	1.18 E	11.77	0.423
5630.00	4.300	133.800	5629.83	19.07 S	1.40 E	12.09	49.531
5640.00	9.400	132.800	5639.76	19.89 S	2.27 E	13.27	51.012
5650.00	15.000	132.500	5649.53	21.32 S	3.83 E	15.36	56.003
5660.00	21.000	132.300	5659.03	23.40 S	6.11 E	18.43	60.003
5670.00	26.400	132.200	5668.19	26.10 S	9.08 E	22.41	54.001
5680.00	29.900	132.200	5677.00	29.27 S	12.58 E	27.09	35.000
5690.00	33.200	132.100	5685.52	32.78 S	16.46 E	32.28	33.004
5700.00	37.200	132.100	5693.69	36.64 S	20.73 E	38.00	40.000
5710.00	40.300	128.800	5701.49	40.70 S	25.50 E	44.23	37.242
5720.00	43.500	128.200	5708.93	44.86 S	30.73 E	50.90	32.250
5730.00	46.800	130.400	5715.99	49.35 S	36.21 E	57.96	36.496
5740.00	51.600	129.500	5722.52	54.21 S	42.01 E	65.50	48.480
5750.00	57.200	127.700	5728.34	59.27 S	48.36 E	73.61	57.877
5760.00	62.500	126.800	5733.36	64.50 S	55.25 E	82.25	53.568
5770.00	67.200	127.100	5737.61	69.94 S	62.48 E	91.30	47.078
5780.00	71.900	128.200	5741.10	75.67 S	69.89 E	100.65	48.116
5790.00	77.000	129.200	5743.78	81.69 S	77.41 E	110.26	51.901
5820.00	90.000	130.700	5747.17	100.79 S	100.21 E	139.89	43.616
5847.11	89.800	128.900	5747.22	118.14 S	121.03 E	166.91	6.680
5878.77	89.700	128.400	5747.35	137.92 S	145.76 E	198.50	1.611
5909.64	89.600	128.800	5747.54	157.17 S	169.88 E	229.31	1.336
5941.44	90.100	129.100	5747.63	177.17 S	194.61 E	261.04	1.834
5973.16	91.000	128.900	5747.32	197.13 S	219.26 E	292.68	2.907
6004.88	90.100	127.400	5747.02	216.72 S	244.21 E	324.35	5.515

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 21-14

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
6036.74	89.600	125.400	5747.10	235.62 S	269.85 E	356.20	6.471
6068.58	90.500	125.100	5747.07	254.00 S	295.85 E	388.04	2.980
6100.42	91.800	124.500	5746.43	272.17 S	321.99 E	419.87	4.497
6131.48	92.600	124.400	5745.24	289.72 S	347.58 E	450.90	2.596
6163.22	92.900	123.700	5743.72	307.48 S	373.85 E	482.60	2.397
6194.29	91.800	123.300	5742.44	324.61 S	399.74 E	513.63	3.767
6225.34	90.300	123.700	5741.88	341.74 S	425.62 E	544.67	5.000
6257.19	89.200	123.700	5742.01	359.42 S	452.12 E	576.51	3.454
6288.91	88.600	123.300	5742.62	376.92 S	478.57 E	608.21	2.273
6319.87	88.200	122.800	5743.49	393.80 S	504.51 E	639.14	2.068
6351.69	88.700	122.300	5744.35	410.91 S	531.32 E	670.92	2.222
6383.43	89.400	121.900	5744.88	427.78 S	558.20 E	702.62	2.540
6415.32	89.600	121.900	5745.15	444.63 S	585.28 E	734.46	0.627
6447.04	88.600	122.100	5745.65	461.43 S	612.17 E	766.13	3.215
6477.67	89.600	121.400	5746.13	477.55 S	638.21 E	796.71	3.985
6509.49	90.200	121.600	5746.19	494.17 S	665.35 E	828.47	1.988
6541.11	89.500	122.300	5746.27	510.91 S	692.18 E	860.04	3.131
6572.85	89.500	121.700	5746.55	527.73 S	719.09 E	891.74	1.890
6603.82	88.200	122.100	5747.17	544.09 S	745.38 E	922.65	4.392
6635.61	88.300	122.100	5748.14	560.97 S	772.30 E	954.39	0.315
6667.44	88.100	122.600	5749.14	578.00 S	799.17 E	986.17	1.691
6699.24	87.700	122.400	5750.31	595.07 S	825.97 E	1017.92	1.406
6730.95	87.400	122.800	5751.66	612.14 S	852.66 E	1049.57	1.576
6762.68	87.400	123.100	5753.10	629.38 S	879.26 E	1081.25	0.945
6794.36	87.500	122.800	5754.51	646.59 S	905.82 E	1112.88	0.997
6825.54	88.200	123.300	5755.68	663.59 S	931.94 E	1144.02	2.758
6857.40	89.100	123.500	5756.43	681.12 S	958.53 E	1175.85	2.894
6889.18	90.200	123.700	5756.62	698.71 S	985.00 E	1207.62	3.518
6920.97	89.600	123.300	5756.68	716.25 S	1011.51 E	1239.40	2.268
6952.79	89.300	123.800	5756.99	733.84 S	1038.02 E	1271.21	1.832
6984.51	89.300	123.800	5757.37	751.48 S	1064.38 E	1302.92	0.000
7016.27	89.300	124.000	5757.76	769.19 S	1090.74 E	1334.67	0.630
7047.35	88.800	123.500	5758.28	786.46 S	1116.58 E	1365.74	2.275
7079.84	88.600	123.700	5759.01	804.43 S	1143.63 E	1398.21	0.870
7110.87	88.600	123.500	5759.77	821.60 S	1169.47 E	1429.22	0.644
7142.70	88.600	122.800	5760.55	839.00 S	1196.11 E	1461.03	2.199
7174.45	89.500	123.300	5761.08	856.31 S	1222.72 E	1492.75	3.243
7205.61	89.000	122.600	5761.48	873.26 S	1248.86 E	1523.89	2.761
7237.45	89.300	122.800	5761.96	890.46 S	1275.66 E	1555.70	1.132
7269.29	89.800	124.200	5762.21	908.03 S	1302.20 E	1587.53	4.669
7301.14	90.800	124.400	5762.04	925.98 S	1328.52 E	1619.38	3.202
7332.88	91.700	125.100	5761.35	944.07 S	1354.59 E	1651.11	3.592
7364.62	90.000	125.600	5760.88	962.43 S	1380.47 E	1682.84	5.583
7396.35	90.100	126.500	5760.85	981.10 S	1406.13 E	1714.57	2.854
7409.00	89.200	126.100	5760.93	988.59 S	1416.32 E	1727.21	7.786

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 21-14

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
7443.00	89.200	126.100	5761.40	1008.62 S	1443.79 E	1761.20	0.000

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.
Vertical Section is from Well and calculated along an Azimuth of 125.000° (True).

Based upon Minimum Curvature type calculations, at a Measured Depth of 7443.00ft.,
The Bottom Hole Displacement is 1761.20ft., in the Direction of 124.938° (True).

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR MOBIL PRODUCING TX & NM, INC.

ADDRESS ATTN: SHIRLEY HOUCHINS

P. O. BOX 633

MIDLAND, TEXAS 79702

OPERATOR ACCT. NO. N 7370

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION QQ	SC	TP	RG	COUNTY	SPUD DATE	EFFECTIVE DATE
B	6280 →		43-037-15753	RATHERFORD 21-14	SW/SW	21	41S	24E	SAN JUAN	10-01-97	10-30-97

WELL 1 COMMENTS: Entity added 12-30-97. fec (Rutherford Unit)

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

RECEIVED DEC 30 1997 DIV. OF OIL, GAS & MINING

ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

Lee Mosley for
Signature SHIRLEY HOUCHINS

ENV & REG TECH
Title

12-18-97
Date

Phone No. (915) 688-2585

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SW/SW 660 FSL & 460 FWL, SEC. 21, T41S, R24E
BHL: LATERAL #1, 942' FNL & 697' FWL/SURFACE LOCATION (TD 6970')
BHL: LATERAL #2, 1009' FSL & 1441' FEL/SURFACE LOCATION (TD 7443')

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other SIDETRACK	[ ] Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

BHL: LATERAL #2 1009' FSL & 1441' FEL OF SURFACE LOCATION.

SEE ATTACHED: CONTINUED COMPLETION 1-22-98 / 2-02-98

RECEIVED
FEB 19 1998
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Kie T Moseley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 2-16-98

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*** See Instruction on Reverse Side**

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT - WELL #21-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH

CONTINUED COMPLETION:

01-22-98	SICP @ 7:30 WAS 200 PSI., RU & BLOW DOWN TO 0 IN 1 MIN. FLOW TBG. PRES @ 7:30 WAS 100 PSI. RD FLOW LINE TO PRODUCTION LINE. RU AND KILL WELL W/1000 BBLS OF 14.7 ppg KILL FLUID, WELL DEAD, REL. PKR. POH & LD PKR & BRIDGE PLUG. SIFN.
01-23-98	SICP @ 7:30 WAS 0 PSI. PICK-UP RIH W/SUPER HOOK, OIL JARS, DRLG. COLLARS, ON 2 7/8" TBG TO 5623'. LATCH ONTO WHIPSTOCK. JAR ON WHIPSTOCK, RELEASE F/WHIPSTOCK. SWI, SDFN.
01-24-98	SICP @ 7:30 WAS 0 PSI. RU/JAR ON WHIPSTOCK @ 5623'., TOP SECTION OF WHIPSTOCK PULLED FREE OF LOWER BODY, REPAIR RIG TONGS. PICK UP OVERSHOT, JARS, DRLG COLLARS, SHOCK JARS, STRING FLOAT RUN ON TBG TO 5000', SWIFN.
01-26-98	SIP=350 OPEN & FLOW DOWN TO 150 TIH TO 5620', RU & WASH TOP OF W/S W B/W PULL BACK TO 5380', KILL WELL, TIH TO 5623', LATCH ON TO WHIPSTOCK, JAR ON W/S @ 5623', CAME LOOSE, TOH LAY DN COLLARS & JARS, TIH W/RET HEAD & TBG, SI & SDFN.
01-27-98	WELL DEAD, TIH LATCH ON TO RBP, WOULD NOT SHEAR, PULL UP GOT OFF TOOL, RIG UP PUMP/WASH AROUND TOOL COULD NOT RELATCH. TOH W/TBG & RET HEAD., TOOL COULD NOT RELATCH. TOH W/TBG & RET HEAD. P/U O/S, JARS, 6-DC, TIH W TBG. SI & SDFN.
01-28-98	FIN. TIH LATCH ON RBP & JAR TO RELEASE, PUMP 110 BBLS 14.7#, WELL STILL FLOWING, SI FOR BUILD UP STABILIZED @ 600#, SI & SDFN.
01-29-98	WHP=850#, KILL WELL W/120 BBLS 17#, TOH W/RBP, L/D DC'S & FISHING TOOLS, TIH W O/E TBG, THEN TOH LD 2 7/8" W/S LEFT IN HOLE FOR KILL STRING, SI, & SDFN.
01-30-98	TIH W/CMT LINED 2 7/8" TBG., CK RING CONTACT, USE STRING GUAGE & DRIFTING, SI & SDFN.
01-31-98	TIH W/2 7/8" CMT LINED TBG, DRIFTING, CKING RING GAP & USING STRING GUAGE, W/O PKR FLUID, LOAD TBG SET PKR @ 5571.89' - TEST PKR TO 1000-HELD GOOD, CIRC. PKR FLUID. NDBOP, INSTALL TREE, LATCH PKR, RIG DOWN UT.
02-02-98	RIG UP TEFTELLER S/L TIH & PUNCTURE DISC, THEN TIH & LATCH ON, RETRIEVE PLUG, RIG DOWN S/L, READY FOR PRODUCTION HOOKUP.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 21, T41S, R24E SW/SW 660' FSL & 460' FWL
BHL: LAT #1 942' FNL & 697' FWL/SURF SPOT
LAT #2 1009' FSL & 1441' FEL/SURF SPOT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other STIMULATION	[ ] Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

SEE ATTACHED (10-10-98 -- 10-23-98) PROCEDURE

ORIGINAL MIT CHART ATTACHED.

RECEIVED
NOV 18 1998
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Sue Moseley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 11-16-98

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

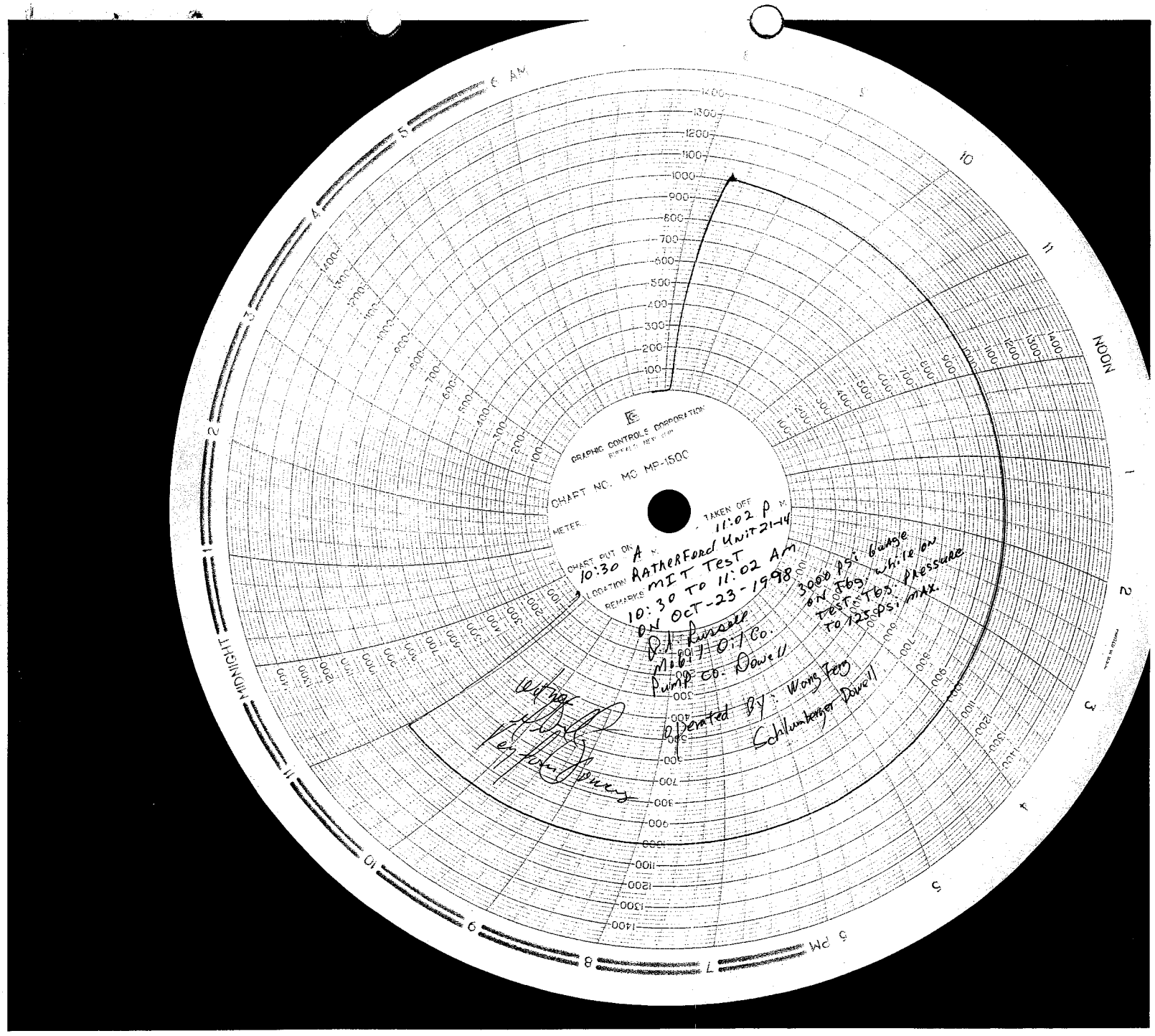
*** See Instruction on Reverse Side**

ATTACHMENT – FORM 3160-5
RATHERFORD UNIT – WELL #21-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH

10-10-98	SITP 2000# FLOWED BACK 1140# SWISDFN NOT ENOUGH TRUCKS TO KEEP UP SWISDFN.
10-11-98	15 HRS. SI TP 1700# FLOWED BACK 1305 BBLS IN 9 HRS, LAST HR FLOWED 54 BBLS. FINAL FLOWING PSI 500# SWISDFN. CALLED BLM IN FARMINGTON, NM @ 11:20 AM. NO ANSWER. LEFT MESSAGE ON ANSWER MACHINE. SAME W/ NAVAHO EPA, CALLED @ 11:23 AM. SAME MESSAGE.
10-12-98	15 HR SI TUBING PRESSURE OF 1700 PSI. CSG. PRESSURE OF 800 PSI., FLOW WELL. MIRU TEFTELLAR SLICKLINE UNIT. RIH WITH 'F' PLUG TO 5567'. SET 'F' PLUG. RDMO TEFTELLAR SLICKLINE UNIT. MIRU NAVAJO WEST RIG #36. NIPPLE UP BOPE, PUMP EQUIPMENT. RU, UNLATCH FROM ON/OFF TOOL. PACKER RELEASED. SIFN.
10-13-98	SI TBG. AND CSG. PRESSURE AT 07:30 WAS 0 PSI. MIRU BASIN WIRELINE UNIT. RIH. W/OD RTG TBG. PERF GUN TO 5475'. SHOT 4 CIRC HOLES THRU 2.875" CMT. LINED TBG. POH, RDMO BASIN WIRELINE UNIT. RU AND ESTABLISH CIRC. RU TO CIRC. COULD NOT CIRC. PRESSURE TO 2500 PSI. BLEED TBG. PRESSURE TO 0. RU TO PUMP DOWN 5.5" CSG. ANN. PRESSURE TO 550 PSI. NO CIRC. UP TBG. WAIT ON WIRELINE. MIRU BASIN WIRELINE UNIT. RIH WITH RTG. TUB. PERF GUN TO 5430' SHOT 4 CIRC. HOLES THRU 2.875" CMT. LINE TBG. RDMO BASIN WIRELINE UNIT. RU AND ESTABLISH CIRC. LOST CIRC. SIFN WITH 0 PSI ON TBG OR CSG.
10-14-98	SI TBG AND CSG. PRESSURE AT 07:30 WAS 0 PSI. RU POH WITH 2.875" CMT. LINED TBG. RU AND PUMP DOWN TBG., CSG. ANN. DISPLACE OUT WATER. WELL ON SLIGHT VAC. POH AND STAND BACK CMT. LINED TBG. WELL START TO FLOW TO 250 PSI WITH 1 JOINT IN HOLE. RU AND PUMP 40 BBLS KILL FLUID, PRESSURE TO 150 PSI. FINISH OUT OF HOLE WITH CMT. LINED TBG. AND PACKER, LAY DOWN PACKER. TALLY, PICK-UP AND RIH WITH PH-6 TAIL PIPE, GUIBERSON PACKER, RUN ON 2.875" TUBING TO 5263'. SIFN.
10-15-98	SI CSG. PRESSURE AT 07:30 WAS 100 PSI. SI TBG. PRESSURE AT 07:30 WAS 0 PSI. RU AND SET PACKER AT 5016.70'. LOAD TBG W/KILL FLUID. UNLATCH FROM ON/OFF TOOL. DISPLACE CSG. W/ KILL FLUID. POH WITH 2.875" TBG AND ON/OFF TOOL. PICK-UP PERF SUB., RIH TO 5016.70', LATCH ONTO PACKER, RELEASE PACKER. POH WITH TBG. AND PACKER. RIH WITH PH-6 TAIL PIPE, MAKE-UP PACKER, RIH ON 2.875" TBG. TO 5830.33' PACKER DEPTH OF 5553.06. COULD NOT SET PACKER. RU TO ACIDIZE LATERAL 2A1 FROM 7443' TO 5820'. SIFN. CALLED NAVAJO EPA @ 09:01 INFORMED OF MIT TEST. 48 HOUR NOTICE. TALKED TO STEVE AUSTIN.
10-16-98	MIRU DOWELL COILED TBG. UNIT. SI TBG PRESSURE AT 9:30 WAS 0 PSI. RIH W/ COILED TBG TO 6970', COULD NOT ADVANCE. POH RD DOWELL COILED TBG UNIT. SI TBG. PRESSURE OF 1000 PSI. RU, KILL TBG. TBG. DEAD. RU AND POH WITH 2.875" TBG. FROM 5830' TO 5580'. WORK PIPE DOWN HOLE INTO LATERAL 2A1, ALL INDICATION TAIL PIPE IN LATERAL 2A1, RU TO SET PACKER, COULD NOT SET PACKER. RU FOR COILED TBG. SIFN

ATTACHMENT – FORM 3160-5
RATHERFORD UNIT – WELL #21-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH
PAGE 2

10-17-98	RU DOWELL COILED TBG. UNIT. SI PRESSURE AT 09:30 WAS 0 PSI ON TBG. 50 PSI ON CSG. RIH W/ COILED TBG. TO 6970'. POH RD DOWELL COILED TBG. UNIT. SI TBG. PRESSURE OF 200 PSI. RU AND KILL TBG. TBG DEAD. POH WITH 2.875" TBG. PACKER, AND TAIL PIPE. MAKE UP STRING MILL, OD, PERF SUB, RUN ON 2.875" TBG TO 5675', OK. POH FROM 5675' TO 5552'. SIFN.
10-18-98	SI TBG. AND CSG. PRESSURE AT 07:30 WAS 0 PSI. POH, LAY DOWN 4.77" OD STRING MILL. PICK-UP GUIBERSON 5.5" PACKER WITH ON/OFF TOOL. RIH TO 5657.30', SET PACKER. RELEASE FROM ON/OFF TOOL. POH. RIH W/ PH-6 TBG. TAIL PIPE GUIBERSON PACKER TO 5830-33'. SET GUIBERSON PACKER AT 5553.06'. SIFN.
10-19-98	MIRU DOWELL COILED TBG. UNIT. SI PRESSURE AT 07:00 WAS 0 PSI. ON TBG. 0 PSI ON CSG. RIH COILED TBG. TO 7443'. DOWELL ACIDIZE LATERAL 2A1 FROM 7443' TO 5830' WITH 24,570 GAL OF 15% HCL ACID. WELL SI. POH. RDMO DOWELL COILED TBG. UNIT. OPEN WELL TO TEST TANK. FLOW PRESSURE FROM 1875 PSI TO 600 PSI. SIFN.
10-20-98	SHUT TBG. PRESSURE AT 07:00 WAS 1400 PSI. OPEN TO TEST TANK PRESSURE FROM 1400 PSI TO 600. RU TO PUMP KILL TBG. TBG. DEAD. RELEASE PACKER, POH. LAY DOWN PACKER. MAKE-UP GUIBERSON OD WIRELINE RE-ENTRY GUIDE, PROFILE NIPPLE, GUIBERSON G-V1 IPC PACKER, RUN ON 2.875" WORKSTRING TO 5540.04'. RU AND LOAD TBG. SET PACKER, RELEASE FROM ON/OFF TOOL. POH, LAY DOWN WORKSTRING FROM 5540.04' TO 2700'. SIFN. CALLED NAVAJO EPA. AND INFORMED OF INTENT TO TEST CSG. AND PACKER (MIT TEST) ON THUR. OCT. 29., OK.
10-21-98	SI PRESSURE AT 07:30 WAS 0 PSI. FINISH OUT OF HOLE AND LAY DOWN WORKSTRING. RU TO RUN 2.875" CMT. LINED TBG. AND BHA. SI DUE TO HIGH WINDS.
10-22-98	SI PRESSURE AT 07:30 WAS 0 PSI. RU AND RIH WITH 2.875" CMT. LINED TBG. TO 5540.04'. SET TBG. HANGER IN WELL HEAD. NIPPLE DOWN BOPE. LATCH ONTO ON/OFF TOOL. MAKE UP PRODUCTION TREE RELEASE FROM ON/OFF TOOL. RU TO DISPLACE TBG. AND CSG. SET PRODUCTION TREE. NIPPLE UP. SIFN.
10-23-98	SI PRESSURE AT 07:30 WAS 0 PSI. MIRU DOWELL PUMP TRUCK. DISPLACE TBG. AND CSG. W/PACKER FLUID. RETURNS CLEAN. NU PRODUCTION TREE, RU & TEST TBG. AND CSG. TO 1000 PSI. (MIT TEST) 30 MIN. OK. (ORIGINAL CHART ATTACHED) MIRU TEFTELLAR SLICK LINE UNIT. RIH TO 5540'. RIH AND LATCH ONTO 'F' PLUG. RELEASE. POH. RDMO TEFTELLAR. RDMO NAVAJO WEST RIG #36. RU FLOWLINE TO PRODUCTION TREE. RD FLOW LINES. RU PRODUCTION INJECTION LINE. FINAL COMPLETION REPORT. TURN WELL OVER TO PRODUCTION. 2.875" CMT. LINED TBG. @ 5478.39'. G-6 PACKER (GUIBERSON) @ 5527.26'.


GRAPHIC CONTROLS CORPORATION
CHART NO. MC MP-1500
METER
CHART PUT ON 10:30 A M
TAKEN OFF 11:02 P M
LOCATION RATHERFORD UNIT 21-14
REMARKS MIT TEST
10:30 TO 11:02 AM
ON OCT-23-1998
D.A. Russell
Mobil Oil Co.
Pump Co. Dowell
3000 psi Gauge
on Tbg. while on
Test Tbg. pressure
to 125 psi max.
Operated By: Wong Feng
Schlumberger Dowell
Witness
Ken Jones
6 AM
NOON
MIDNIGHT
5 PM

Original copy of.
MIT Test Done
10-23-98

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-W-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 21, T41S, R24E
(SW/SW) 660' FSL & 460' FWL

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
	[ ] Recompletion	[ ] New Construction
[ ] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other MIT TESTS	[ ] Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

SEE ATTACHED MIT AND CHART.

RECEIVED
MAY 11 1998
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Lee Mosley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 5-13-98

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*** See Instruction on Reverse Side**

ANNULAR PRESSURE TEST
(Mechanical Integrity Test)

Operator Mobil E. & P., Inc **Date of Test** 2-9-98

Well Name ~~MGU #~~ RU # 21W-14 **EPA Permit No.**

Location Sec. 21, T41S-R24E **Tribal Lease No.** 14-20-603-353

State and County San Juan County, UT

Continuous Recorder? YES ☒ NO ☐ **Pressure Gauge?** YES ☒ NO ☐

Bradenhead Opened? YES ☐ NO ☒ **Fluid Flow?** YES ☐ NO ☐

TIME	ANNULUS PRESSURE, psi	TUBING PRESSURE, psi
4:30	1000	1800
4:35	985	1800
4:40	980	1800
4:50	970	1800
5:00	960	1800

MAX. INJECTION PRESSURE: _____ **PSI**

MAX. ALLOWABLE PRESSURE CHANGE: _____ **PSI (TEST PRESSURE X 0.05)**

REMARKS: **Passed? Failed? If failed, cease injection until well passes MIT (40CFR§144.21(c)(6)).**

PASSED M.I.T.

THOMPSON TSOSIE [signature] 2-9-98

COMPANY REPRESENTATIVE: (Print and Sign) **DATE**

Melvin Capitan Jr. [signature] 2-9-98

INSPECTOR: (Print and Sign) **DATE**

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF INSPECTION

Address (EPA Regional Office)	Inspection Contractor	Firm To Be Inspected
Region 9 Environmental Inspection Agency 215 Fremont Street (W-6-2) San Francisco, CA 94105	Navajo EPA ~~THE CADMUS GROUP, INC~~ ~~CORPORATE OFFICE~~ ~~Waltham, MA 02154~~	Mobil E.&P., Inc. P.O Box Dawer G Cortez, Co 81321

Date 2-9-98	Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300 f et seg.).
Hour 4:00 PM	

Reason For Inspection

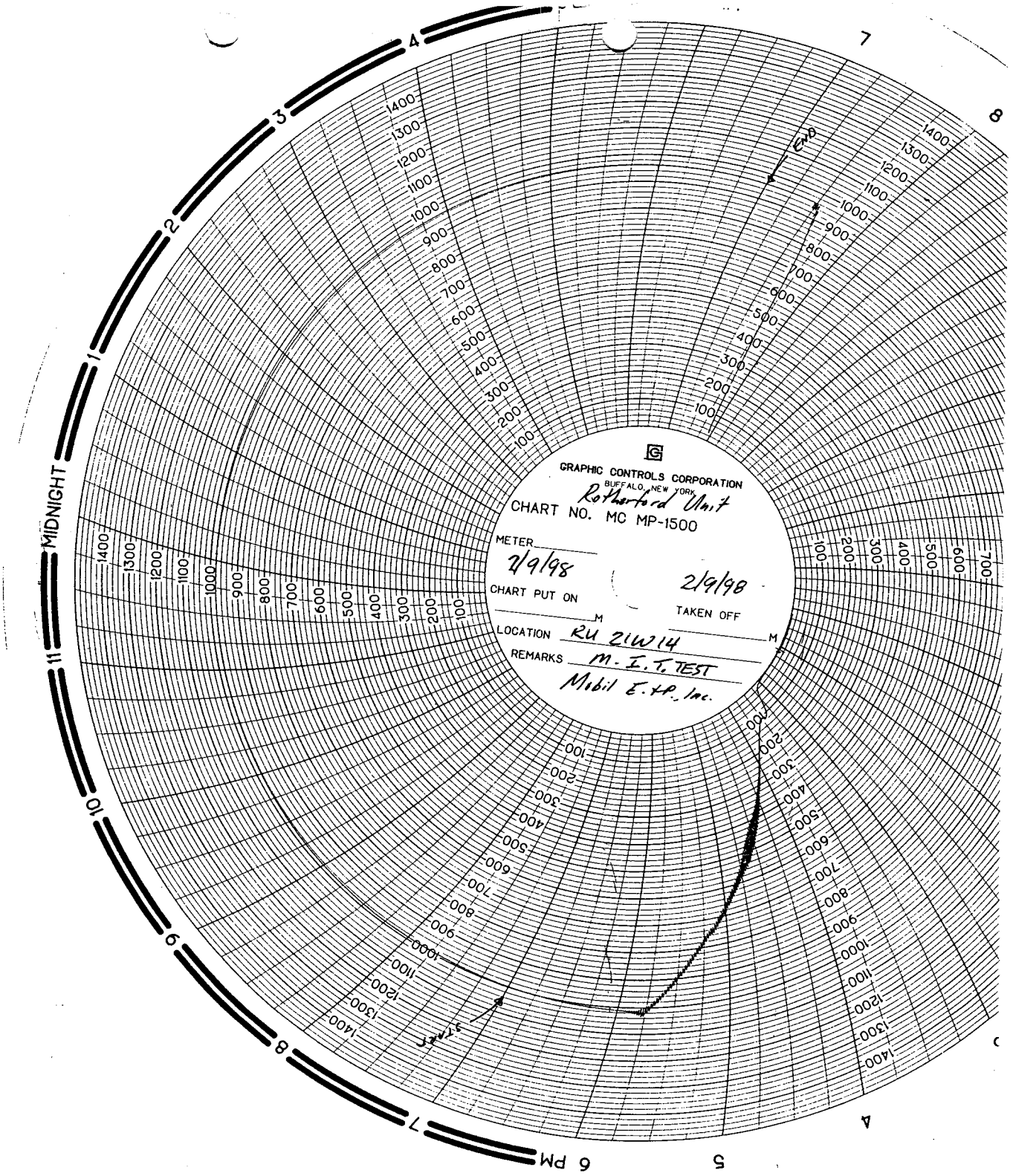
For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable permit or rule.

RU # 21W-14, WATER INJECTION WELL, M.I.T. - PASSED

Section 1445(b) of the SDWA (42 U.S.C. §300 j-4 (b) is quoted on the reverse of this form.

Receipt of this Notice of Inspection is hereby acknowledged.

Firm Representative	Date	Inspector
[illegible]	2-9-98	[illegible]


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
Rutherford Unit
CHART NO. MC MP-1500
METER
2/9/98
CHART PUT ON
M
2/9/98
TAKEN OFF
M
LOCATION RU 21W14
REMARKS M.I.T. TEST
Mobil E.+P. Inc.
START
END
MIDNIGHT
6 PM

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 21-14
9. API Well No.: 43-037-15753
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 21, T41S, R24E
(SW/SW) 660' FSL & 460' FWL
BHL-942 N & 697 W FROM SURF LOC

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other MIT CHART	[ ] Dispose Water

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

13. 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.)*

SEE ATTACHED CHART.

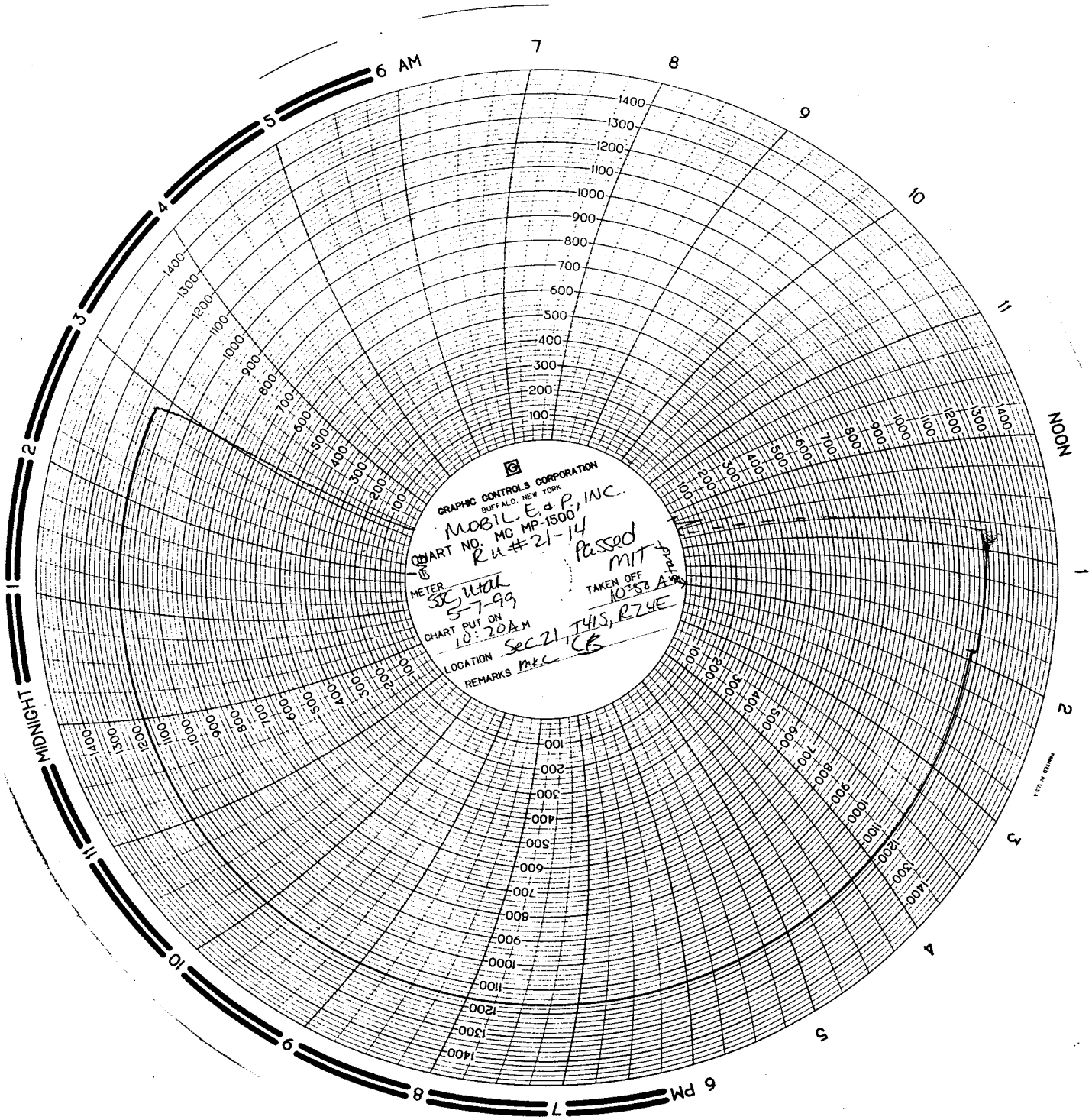
14. I hereby certify that the foregoing is true and correct
Signed Lee Mosley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 5-12-99

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instruction on Reverse Side


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
MOBIL E. & P., INC.
CHART NO. MC MP-1500
RU #21-14
Passed MIT
METER SJC, Utah
5-7-99
TAKEN OFF 10:50 AM
CHART PUT ON 10:20 AM
LOCATION Sec 21, T41S, R24E
REMARKS MKC CB
6 AM
NOON
6 PM
MIDNIGHT

Form 3150-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.: 14-20-603- 355
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA/Agreement, Name and/or No.: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD UNIT 21-W-14
9. API Well No.: 43-037-15753
10. Field and Pool, or Exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other INJECTION
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3a. Address: P.O. Box 4358, Houston, TX 77210-4358
3b. Phone No. (include area code): (713) 431-1197
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL, 460' FWL Section Line, Sect. 21, S-41, E-24

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Evaluate, Repair, Return to injection
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

Pull tubing and packer equipment, troubleshoot failure, and return well to water injection. Detailed procedure is attached.

Start date is pending on working interest approval.

RECEIVED
FEB 18 2000
DIVISION OF
OIL, GAS AND MINING

SEE ATTACHMENT FOR ADDITIONAL REMARKS

COPY SENT TO OPERATOR
Date: 2-23-00
Initials: CHD

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed): Ellen M. Carroll
Signature: Ellen M Carroll 2-16-2000
Title: Sr. Staff Office Assistant
On behalf of Mobil Exploration & Producing US Inc
Date: as agent for Mobil Producing Tx & NM Inc.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by | Title | Date

Conditions of approval, if any, are attacheed. Approval of this notice 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.

Office

Accepted by the Utah Division of Oil, Gas and Mining

Federal Approval of this Action is Necessary

Title 18 U.S.C. Section 1001, makes 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 Reverse)

FOR RECORD ONLY

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #21-W-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH

A) GENERAL WELL IDENTIFICATION INFORMATION

FIELD	:	Greater Aneth Area
LEASE	:	Ratherford
COUNTY	:	San Juan
STATE	:	Utah
API#	:	43-037-15753-01
WELL I.D	:	
LOCATION CODE	:	T1767900
DRS CODE	:	RT1767921014

B. GENERAL WELL INFORMATION:

Zone(s): Desert Creek Lateral 1A1 and 2A1
Perfs: 5820'-7443'
Initial Completion Date: 9/24/58
Est. BHP: 4350psi
Est. SITP: 2000psi (after 20hrs of flowback)
Total Depth: 5952'
PBTD: 5755'
Open Hole Depth:
Top of Fish: N/A
Top of Cmt: 2800'
Method: Log__ or Calc_x_
Surface Casing: 13 3/8", 27.1#, 175', 8 5/8", 24#, J55, 1692'
Production Casing: 5 ½", 14#, 15.5#, J55, 5950', Lateral 2A1 5820' – 7433', Lateral 1A1 5827' – 6970'
Note: Whipstock@5623', RTBP 5645'
RKB: 10'

Well Tests: NA

Fluid Levels: NA

Injection Support: NA

Production Support:
RT2124 - O/W/G/T – 103/330/22/433 - lost 50bopd since inj shut-in period
RT2044 – O/W/G/T – 143/225/165/368 – lost 50bopd since inj shut-in period
RT2811 - O/W/G/T –18/23/13/41 – no significant loss in prod since inj shut-in
RT2123 - O/W/G/T – 26/236/10/262 – no significant loss in prod since inj shut-in
Total lost bbls - 100bopd

C. Materials Needed:

a. 5 ½" x 2 3/8" on/off tool and 5 ½" uni VI pkr

b. 180jts of 2 7/8" cmt lined tbg

D. Troubleshooting/History:

2/3-5/2000 - Objective- To set a plug in profile and test tbg, csg, and on/off tool. MIRU Teftellers wireline service. SITP was 2450psi and SICP was 1020psi. RIH w/ 1.87 plug to 5527' and couldn't set in profile. RIH w/1.871 F plug to 5527' and set in profile. Bled off csg to 0psi. Pressured up tbg to 3000psi and monitors pressure. RDMO Teftellers. Bled tbg pressure down to 0psi and monitored pressures. On 2/7/00, the well had 300psi on the csg and 0psi on the tbg. The pressure was blown down to 0psi with only 3gallons of fluid being discharged from the well. Note – The fluid was not analyzed. On 2/9/00, the well had 50psi on the csg and 0psi on the tbg. The pressure results seem to suggest a pkr leak or a very slow csg leak.

1/27/2000 – Water samples were collected from csg and analyzed by Gary Roberts for Baker Petrolite. The results of his analysis indicated that the sample was freshwater w/ pkr fluid chemical. There was no sign of foreign water and the chlorides were normal (1800).

10/98 – Workover to Acidize lateral 2A1 – 15hr SITP 1700#. Flowed back 1305bbls of water. Flowed down to 500#. Total flow back was 2245bbls. MIRU PU and shot 4holes in 2 7/8" cmt lined tbg just above tbg plug. Circ 120bbls of 15ppg mud, and POOH w/ pkr and cmt lined tbg. Load tbg w/ 15.8ppg mud and displaced csg. RIH w/ perf sub and on/off tool. Latch onto pkr, released and POOH w/ equipment. RIH w/ tailpipe and pkr @5830'. MIRU Dowell coiled tbg unit. RIH w/ 1.75" coiled tbg to 7443'. Dowel acidized the lateral 2A1 from 7443' – 5830' w/ 24,570gallons of 15% HCL. POOH w/ coiled tbg. POOH w/ workstring and RIH w/ 178jts of 2 7/8" cmt lined tbg and displaced pkr fluid.

2/2/98 – Completion of horizontal sidetrack. MIRU FTP at 100#. Kill well w/ 14.7ppg kill fluid. Release pkr. POOH w/ pkr and RBP. Attempt to release whipstock. Jarred up hole 14". POOH w/ top section of whipstock, pulled free of lower body. RIH w/ fishing equipment. Caught lower body of WS and POOH. TIH and eventually was able to release RBP. Well flowing. Pumped 14.7ppg kill fluid, well still flowing. SI for buildup, stabilized at 600#. Kill well w/ 17# fluid. POOH RBP. RIH w/ inj pkr w/ re-entry guide and profiles w/?? jts of 2 7/8" cmt lined tbg. Set pkr at 5572'. Test pkr to 1000#. OK. RDMO.

10/30/97 – MIRU. Release RBP at 5580'. RIH to 5600'. Set pkr at 5567'. Hook up tbg to flowline. Flow well back. RDMO.

10/22/97 – Multilateral horizontal sidetrack. 10/14/97. MIRU. RIH w/3 degree whipstock on DP to 5600'. Ran GYRO. Orient whipstock and set bottom trip whipstock on RBP at 5645' w/top of WS at 5623' at 132degree GTF. Lateral #1. Cut window 5622'-5629'. Drilled 4 ¾" curve 1A1 5629' – 5820' (5747' TVD). Drilled lateral 1A1 5820'-7443' MTD. Tagged top of DC 1-A porosity at 7355' MD. Projection survey at TD of 7443', 89.2angle, 126.1AZ, 1762' vs. kill well. POOH BHA. Set RBP at 5580'. Displaced hole w/ 10# brine. POOH. RDMO.

10/8/97 – Prep for sidetrack. 10/1/97. MIRU. Test csg to 1000#. Leaked 160# in 30min. Flowed well down production line. Kill well with 15.8ppg kill fluid. Release pkr, start out of hole. Pkr seal elements would not release. RIH w/ collar loc. and perf gun. Shot 4 circ holes at 5565'. POOH. Circ 16.1ppg kill fluid. Work pkr free. POOH cmt lined tbg and pkr. RIH w/ pkr and RBP to 5649'. Could not get RBP to set. Lost RBP. POOH w/ pkr and retr head. RIH w/ overshot. Latch onto RBP and POOH. RIH w/ WL gauge ring to 5760'. POOH. Ran GR, CCL from 5660' – 5300'. RIH w/ RBP and set at 5645'. RIH w/ pkr to 5593'. Displace csg with freshwater. Set pkr and test RBP to 1000# for 30min. OK. POOH w/ pkr and installed new tbg head. Test to 1500#. OK. RDMO.

3/17/95 – Horizontal sidetrack. Tag bottom at 5921'. Cut window in csg 5730-5755'. Set CICR at 5603'. Squeeze perfs w/ 150sx cmt. Squeeze again w/ 75 sx cmt below CICR. Then another 150sx cmt. DO cmt 5441' – 5735' (KOP). Time drill curve 5739' – 5827'. Drill lateral 5829' – 6970' MD. BHL: 942'N & 697' W from surface location in sec 20, 41S, 24E. Used C.T. to acidize w/ 322 bbls 15% HCL Acid from 6970' – 5910' O.A. swab and flow well. POOH w/ tbg and pkr. RIH w/ prod equipment. TAC at 5563', SN at 5625'. RWTP.

GENERAL PROCEDURES.

NOTE: This program is intended as a guide, to be closely followed as long as actual conditions agree reasonably well with pre drilling predictions. When substantially different actual conditions are encountered, the Mobil Drilling Supervisor will take appropriate action to safely and economically control the new conditions and will advise his supervisor of such actions as soon as job conditions permit.

Note – Drilling Fluids

- **Keep all particulate materials out of curves and laterals if at all possible.**
- **Minimize the use of particulate muds (carbonates) if possible.**
- **If CaCl2 brine is used, then add 0.1% by volume of safebreak CBF to brine. This will break any emulsion that forms.**
- **If particulate mud (carbonate mud) is used, minimize the use of non-acid soluble materials such as barite. Use barite weighted carbonate mud only when necessary.**

PRE-Rig up work

(1) Prior to MIRU PU, MIRU wireline company and remove plug in the 1.81F profile located in the on/off tool. 2hrs

(2) Flow back the well for 24hrs. Shut-in well and calculate kill fluid. Note – Last job (10/98) required 15ppg mud after 20hrs of flowback.

Note – Flow back may be canceled if the Mobil Drilling Supervisor feels that the cost incurred would far exceed the additional cost of increasing the kill mud weight. The mud weight could rise to 17ppg if the well is not back flowed.

(3) Mix mud and proceed to bullhead down the tbg.

---

(1) Prior to MIRU, make sure the tbg reads 0 psi and blowdown the csg as needed. 2hrs

(2) MIRU PU, ND WH, NU BOP/hydril. 3hrs

Note - There is a new directive to change the position of the blind rams and pipe rams as per new ExxonMobil Workover operations manual.

Current Setup	New Setup
Annular Preventer	Annular Preventer
Pipe Rams	Blind Rams
Master valve	Note – Rams should be Double Schafer w/ side outlets
Blind Rams	Pipe Rams
Circ using csg valve	Csg valve cannot be used to circ

(3) Release on/off tool and circ out well fluid and circ in kill fluid. 4hrs

(4) MIRU Campbell Tbg Testing Co. 2hrs

(5) Latch back on to pkr and POOH SB 2 7/8" cmt lined tbg that passes 3500psi test, and LD all others as well as the 5 ½" x 2 3/8" on/off tool, 5 ½" x 2 3/8" Guiberson G6 packer. 8hrs

Note – If packer will not release, stop work immediately and consult Engr (713-431-1253).

Note – Baker rep – Gary Roberts should be on hand to inspect tbg and pkr assembly.

Note – Guiberson or Arrow should be on hand to inspect pkr equipment.

(6) PU 2 7/8" workstring, 5 ½" treating pkr & RBP for 5 ½" csg. 2hr

(7) RIH on 2 7/8" workstring and set RBP @ 5527' and test csg to 1000#. If csg holds proceed to step 8 otherwise see note below. 4hrs

Note – If csg doesn't hold then proceed to step 9.

(8) POOH SB 2 7/8" workstring and LD RBP and pkr. Proceed to step 10. 3hrs

(9) Begin isolating the leak by testing to 300# starting with pkr set @ 2500'. Notify SSE of findings before preceding further (713-431-1253). 4hrs

Note – Once leak has been isolated within 50', establish rate and pressure.

(10) PU bit and scraper and RIH on workstring cleaning out to 5550'. 4hrs

(11) POOH LD WS, bit and scraper. 6hrs

(12) PU redressed or replacement 5 ½" x 2 3/8" on/off tool, Guiberson Uni VI packer w/ 1.81 F profile, and pump-out plug. 2hrs

(13) RIH w/ 2 7/8" cmt lined tbg testing each connection to 3500psi using nitrogen. set Guiberson Uni VI pkr in tension. Do not set pkr any lower than 5547' and no higher 5507'. The original packer depth was 5527.26'. Pressure test csg to 1000 psi. 5hrs

(14) RDMO Campbell tbg testers and inspection. 2hrs

(15) Release on/off tool, circ. Pkr. Fluid (97bbls of freshwater w/ 41gal of Baker Petrolite CRW 132F) latch on to pkr. 3hrs

(16) ND BOP/Hydril, NU WH. 2hrs

Note – Call ahead (at least 48hrs prior to testing) to the Navajo EPA and BLM so that they have time to find a witness for the MIT test if needed once the injection string is run back in. The backside should be tested to 1000psi with no more than a 10% loss in 30minutes if a successful test is to be obtained. The test should be charted and an original copy sent to Ellen Carroll (713-431-1197) in Houston, Tx.

(17) Test tbg to 1200 psi and pump-out plug. 1hr

(18) Clean location RDMO PU. 2hrs

(19) Notify James Madison (970-565-1351) to perform PSSR and approve location before releasing roustabouts .

Total hrs – 59hrs + 12misc = 71hrs

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #21-W-14
14-20-603-355
NAVAJO TRIBAL
SAN JUAN, UTAH

Ratherford 2114
WELL ID RT1767921014
API # 43-037-15753-01
Sec 21 – 41S – 23E

OVERALL OBJECTIVE:
(1) Pull pkr, on/off tool, and tbg
(2) Test tbg & troubleshoot failure
(3) RIH w/ replacement pkr, on/off tool and pkr
(4) Restore injection

Csg size –5 ½", 14#, 15.5#, J55, 5950'

Surface csg – 13 3/8", 27.1#, 175', 8 5/8", 24#, J55, 1692'

177jts of cmt lined Tbg

EXISTING EQUIPMENT
Run time – 10/22/98

- 5534.63' –5534.22' – 2 3/8" w/l re-entry guide (.41')
- 5534.22' – 5533.36' – 2 3/8" x 1.78 R profile 316SS (.86')
- 5533.36'-5527.26' – 2 3/8" x 6' pup jt 316SS (6.1')
- 5527.26'-5523.56' – 5 ½" x 2 3/8" G6 pkr 13-15.5# plastic coated (3.7')
- 5523.56' – 5521.36' – 5 ½" x 2 3/8" XL on/off tool w/ 1.81 F profile 316SS (2.2')
- 5521.36' – 5520.51' - ?? (.85')
- 5520.51' – 5519.54' – 2 7/8" x 1.87GF profile (.97')
- 5519.54' – 5518.8' – 2 7/8" x 2 7/8" kcts x-over (.74')
- 5518.80' – 40.41' – 177jts of 2 7/8" cmt lined prod tbg (5478.39')
- 40.41' – 10' – 1jt landing 2 7/8" cmt lined tbg (30.41')
- 10' - KB

Surface Csg Shoe @ 1692'

COMPLETION DATE: _____
TOTAL COST: _____

Lateral 2A1 – Details
Curve Section:
MD: 5629' – 5820'
TVD: 5629' – 5747'
Az: 130.7deg
Inc:90deg
Max dog leg:60@5660' &57.9 @5750'md

Lateral 1A1 Details
MD:5755'-5827'
TVD:5755'-5790'
AZ:322deg
Inc:96.5deg
Max dog leg: 166 @5781', 126 @5795', 125 @5775' & 5789' md

TOC 2800'

Pkr depth - 5527.26'

Lateral section 2A1– MD:5820-7443', TVD:5747'-5761', VS:1762, Az:126 deg, length:1623', max dog leg:7.8@7409', 6.7 deg at 5847', 6125'md

Lateral Section 1A1– MD:5827'-6970', TVD:5790'-5750', VS:1159, AZ313deg, Length: 1143', max dog leg: 44 at 6340', 27 at 6330', 18 at 6430', 13 at 6420'

Perfs – sqz off - 5735' – 5904'

PBTD - 5755'
TD 5952'

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603 355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358 Houston TX 77210-4358**

3b. Phone No. *(include area code)* **(713) 431-1197**

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, S-41, E-24

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other **Evaluate, repair, return to injection**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

SUPPLEMENT TO SUNDRY NOTICE DATED 2/16/2000.

Item #9 in the procedure attached to the prior sundry notice is supplemented as follows:

(9a) Squeeze the casing with an adequate amount of cement to seal off the leak.
Drill out.
Run a mechanical integrity test to 1000#.
If the test doesn't pass, resqueeze and retest as necessary until the test passes.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Ellen M. Carroll**

Title **Senior Staff Office Assistant**

Signature Ellen M Carroll

Date **02/25/2000**

On behalf of Mobil Exploration & Production US Inc. As agent for Mobil Producing Tx & NM Inc.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attacheed. Approval of this notice 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.

Office

COPY SENT TO OPERATOR
Date: 2-29-00
Initials: CHD

Accepted by the Utah Division of Oil, Gas and Mining

Title 18 U.S.C. Section 1001, makes 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 Reverse)

FOR RECORD ONLY

Federal Approval of this Action is Necessary

ExxonMobil Production Company
P.O. Box 4358
Houston, TX 77210-4358

US WEST

ExxonMobil

March 22, 2000

Request for Extension to Repair Injectors
Ratherford Unit #21W-14 43 037 15753
Ratherford Unit #17W-32 43 037 15729
San Juan County, Utah

RECEIVED
DIVISION OF
OIL, GAS AND MINING

Mr. Jim Walker
United States Environmental Protection Agency
1235 LaPlata Hwy.
Farmington, New Mexico 87401

Dear Mr. Walker:

Exxon Mobil respectfully request a 60-day extension to repair and retest Ratherford Unit #21W-14 and Ratherford Unit #17W-32. These wells have an apparent casing leak. The sundry notice of intent on #21W-14 has been approved, and work has begun to repair this well. A sundry notice of intent to temporarily abandon #17W-32 was distributed on March 21, 2000.

If you need further information, please call me at 713-431-1197, or send an e-mail to ellen.m.carroll@exxon.com.

Ellen M Carroll

Ellen M. Carroll
Senior Staff Office Assistant
Exxon Mobil Corporation, a division of Exxon Mobil Corporation
on behalf Mobil Producing Tx. & N.M. Inc.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

xc: George Robin, U.S. Region IX E.P.A.
Charmaine Hosteen, Navajo Nation E.P.A.
Steve Mason, Bureau of Land Management, Farmington, NM
State of Utah, Division of Oil, Gas, & Mining

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603 355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator
Mobil Producing TX. & N.M. Inc.

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358**
Houston TX 77210-4358

3b. Phone No. *(include area code)*
(713) 431-1197

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, S-41, E-24

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other **MIT Results - Failed MIT**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

Copy of MIT results and chart are attached.
- Failed MIT.

RECEIVED
MAY 24 2000
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Ellen M. Carroll**
Title **Senior Staff Office Assistant**
Signature Ellen M Carroll
Date **05/22/2000**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by | Title | Date

Conditions of approval, if any, are attacheed. Approval of this notice 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. | Office

Title 18 U.S.C. Section 1001, makes 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 Reverse)

Permits

APR 1 1 2000

ANNULAR PRESSURE TEST

(Mechanical Integrity Test)

Operator EXXON-MOBIL ~~E.+P., INC.~~ US West mkc Date of Test 3-10-00

Well Name RATHERFORD UNIT WELL #21-14 EPA Permit No.

Location SWSW Sec 21, T41S, R24E Tribal Lease No. 14201603355

State and County SAN JUAN COUNTY, UTAH

Continuous Recorder? YES ☑ NO ☐ Pressure Gauge? YES ☑ NO ☐

Bradenhead Opened? YES ☑ NO ☐ Fluid Flow? YES ☐ NO ☑

TIME	ANNULUS PRESSURE, psi (0-1500 psi) 0-1000 psi gauge	recorder	TUBING PRESSURE, psi 0-5000 psi gauge
10:00 Am	~~10~~ 1051 mkc	1030	1980
10:05 Am	1050	1019	1980
10:10 Am	1050	1000	1980
10:15 Am	1049	1000	1980
10:20 Am	1095	1060	1980
10:25 Am	1150	1140	1980
10:30 Am	1310	1215	1980

MAX. INJECTION PRESSURE: 3000 PSI

MAX. ALLOWABLE PRESSURE CHANGE: 52 PSI (TEST PRESSURE X 0.05)

REMARKS: ~~Passed?~~ Failed? mkc If failed, cease injection until well passes MIT (40 CFR §144.21(a)(6))

Well had workover, repaired packer

Not injecting.

~~Passed MIT.~~ mkc Failed MIT, confirmed w/ U.S. EPA, Jim Walke

Possible leak at packer, reason for increase in annulus psi

RECEIVED

MAY 24 2000

DIVISION OF OIL, GAS AND MINING

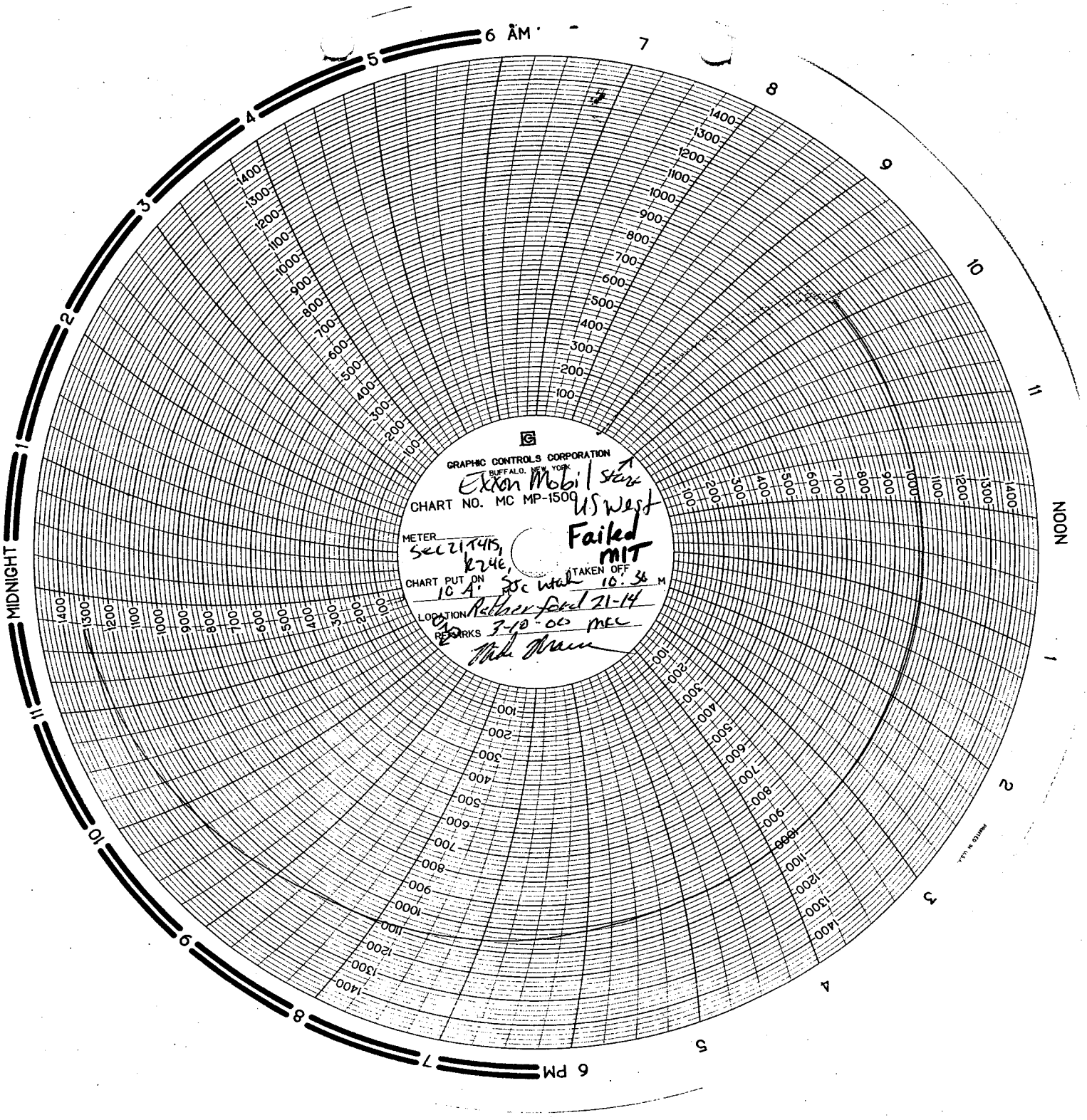
Mike Marrs [signature] 3-10-00

COMPANY REPRESENTATIVE: (Print and Sign) DATE

MELVINA K. CLAH [signature] 3-10-00

INSPECTOR: (Print and Sign) DATE

REGION-IX-FORM-935 (6/13/96) USEPA - Region IX (White) NEPA-GPCP (Yellow) Operator (Pink)



RECEIVED

MAY 24 2000

DIVISION OF
OIL, GAS AND MINING

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603-~~247A~~ 355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator
Mobil Producing TX. & N.M. Inc.

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358 Houston TX 77210-4358**

3b. Phone No. *(include area code)* **(713) 431-1197**

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, T41S ~~R23E~~ 24E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☒ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

Procedure to temporarily abandon well is attached.

RECEIVED
AUG 0 1 2000
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Ellen M. Carroll**

Title **Senior Staff Office Assistant**

ExxonMobil Production Company
A division of Exxon Mobil ~~Corporation, acting for~~
Mobil Producing Texas & New Mexico Inc.

Signature Ellen M Carroll

Date **07/31/2000**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attacheed. Approval of this notice 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.	Office	

Title 18 U.S.C. Section 1001, makes 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 Reverse)

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #2114
API #43-037-15753 SEC. 21 T41S R23E
SAN JUAN COUNTY, UTAH

PROCEDURE TO TA WELL

A) GENERAL WELL IDENTIFICATION INFORMATION

FIELD	: Greater Aneth Area
LEASE	: Ratherford 2114
COUNTY	: San Juan County
STATE	: Utah
API#	: 43-037-15753-01

B. GENERAL WELL INFORMATION:

Zone(s): Desert Creek
Perfs: 5820'-7443'
Initial Completion Date: 9/24/58
Est. BHP: 4350psi
Est. SITP: 2000psi (after 20hrs of flowback)
Total Depth: 5952'
PBTD: 5755'
Open Hole Depth:
Top of Fish: N/A
Top of Cmt: 2800'
Method: Log__ or Calc_x_
Surface Casing: 13 3/8", 27.1#, 175', 8 5/8", 24#, J55, 1692'
Production Casing: 5 ½", 14#, 15.5#, J55, 5950', Lateral 2A1 5820' – 7433', Lateral 1A1 5827' – 6970'
Note: Whipstock@5623', RTBP 5645'
RKB: 10'

Well Tests: na

Fluid Levels: na

Injection Support: na

C. Materials Needed:

a.

b.

D. Troubleshooting:

RECEIVED

AUG 0 1 2000

DIVISION OF
OIL, GAS AND MINING

5/11/00 – 5/22/00 – Set RBP @5510' circ out mud (17.8ppg) and tested csg to 1000psi for 30min. Held. MIRU Schlumberger and log from 5489' to surface. Found collapsed csg @ 5487'. Casing above bad spot looks good. Some slight scale buildup in places. RBP rental paid thru 5/31/2000. 160 jts left in the hole approximately 525ft above RBP.

2/29/2000-3/8/2000 – MIRU PU, kill well, pull equipment, troubleshoot failure, and return well to injection. Bled well down. Removed tree NU BOP. Released on/off tool. Circ well w/ 16.5ppg mud. Tested BOP to 500psi. POOH and SB 2 7/8" CL tbg and on/off tool. PU and RIH w/ on/off tool on 2 7/8" WS. RIH w/ 5 ½" RBP on 2 7/8" WS and set plug @5510'. Pull 1jt, circ out mud w/ water. Pressure test csg to 1000psi. Pressure building slightly, but bled down to 0psi. SICP was 0psi. No pressure buildup. Pressure test csg to 1000psi. Lost 20psi in 30min OK. Displace out wtr w/ 16.5ppg mud. RIH w/ on/off tool on 2 7/8" CL tbg testing connections to 3500psi. Release on/off tool, circ out mud w/ pkr fluid. Latch on/off tool. NU tree. Pressure chart annulus to 1000psi for 30 min. OK. Pump out plug. SITP 1900psi, SICP 0psi. Ran MIT for EPA. Pressure annulus to 1000psi. Approximately 15min into test, pressure started to increase. Failed MIT. Attempted to bleed off pressure. Flowing out annulus. Set plug in on/off tool profile. Bled tbg to 0psi. Annulus still had 2000psi on it. RDMO PU until the well could be evaluated by Reservoir.

9/5/87 - Csg leak found between 2826' and 2907' using csg inspection logs. Attempted to squeeze w/ 21bbls cmt to 2500psi. Swabbed well and was unable to determine fluid entry. Loaded hole and tested to 1000psi. Lost 350psi in 10min.

6/15/90 - Csg leak found between 2888'-2910' and 3900'-4033'. Set Ret @ 3929' and squeezed 75sx of class G cmt. Pulled tbg to 2939'. Mixed and pumped 16sx of class G cmt to squeeze leak to 1300psi (balanced plug). DO cmt and tested squeeze to 1000psi. OK.

EHS Instructions

A. **All potential loss of well control and/or spills of formation fluids must be reported to the necessary governing agency immediately.**
B. **Material Safety Data Sheets (MSDS) must be maintained on location for all materials and fluids except standard lubricants.**
C. **SPCC plans for both the operator and the rig contractor should be available on location, preferably posted for convenience.**
D. **Location hazard diagram provided should be distributed to the appropriate contractors.**
E. **H2S exposure radius sheet attached should also be posted for workers to see.**
F. **All discolored soil should be picked up and taken to the remediation area. Replace with remediated soil.**

When closing pits, cut the pit liner at the mud line & then backfill according to field specs. For more information contact Davis Benallie of the Navajo EPA.

GENERAL PROCEDURES.

For injection wells only

Note – Call ahead (at least 48hrs prior to testing) to the Navajo EPA and BLM so that they have time to find a witness for the MIT test if needed once the injection string is run back in. The backside should be tested to 1000psi with no more than a 5% loss in 30minutes if a successful test is to be obtained. The test should be charted and an original copy sent to Ellen Carroll (713-431-1197) in Houston, Tx.

RECEIVED
AUG 0 1 2000
DIVISION OF
OIL, GAS AND MINING

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #2114
API #43-037-15753 SEC. 21 T41S R23E
SAN JUAN COUNTY, UTAH

(1) Prior to MIRU bleed pressure off well into pit and circulate in inhibited 10ppg brine and circulate out pkr fluid. Monitor well for pressure increase. 3hrs

(2) MIRU PU. Ensure well is dead. ND wellhead and NU BOPE. 2hrs

Note – This step will require a management of change because there is only one stop between the perforation zone and the surface wellhead. See attached MOC for further detail.

(3) POOH SB 2 7/8" Cmt lined tbg. 2hrs

(4) PU treating pkr and RIH on 2 7/8" cmt lined tbg to 5410' and test RBP to 1000psi. 2hrs

(5) Dump the equivalent sacks of sand required to achieve a minimum vertical height of at least 10ft. (0.5hr)

(6) If RBP doesn't hold the 1000psi then place a 20ft cmt plug on top of sand. Otherwise, disregard this step. 1hr

(7) Release pkr and begin isolating the leak by testing to 500# starting with pkr set @ 2500'. continue isolation until leak has been narrowed down to a 50' interval. 4hrs

Note – History of csg leaks: (1) 2826' & 2907' in 1987
(2) 2888' – 2910' in 1990
(3) 3900'- 4033' in 1990

(8) Establish rate and pressure into csg leak. (1hr)

Note – If no leak is found then proceed to step 11.

(9) MIRU cmt company. Proceed to squeeze approximately 20 – 50sx of Class G cmt into csg leak and then spot a balanced plug across leak interval with a height of 50ft above and 50ft below leak interval. 6hrs

Note – If the pump pressure is greater than 500psi and the rate is less than 0.25BPM then don't attempt squeeze.

(10) RDMO cmt company. 2hrs

(11) Perform preliminary MIT by pressuring up to 1050# for 30min. 1hr

Note – MIT approval requires the well to maintain a 1000# for 30min w/ no more than a 5% loss in pressure.

(12) POOH LD pkr and 2 7/8" cmt lined tbg. 2hrs

RECEIVED

AUG 0 1 2000

DIVISION OF
OIL, GAS AND MINING

(13) ND BOP/Hydril, NU WH. 2hrs

Note – Call ahead (at least 48hrs prior to testing) to the Navajo EPA and BLM so that they have time to find a witness for the MIT test if needed once the injection string is run back in. The backside should be tested to 1000psi with no more than a 5% loss in 30minutes if a successful test is to be obtained. The test should be charted and an original copy sent to Ellen Carroll (713-431-1197) in Houston, Tx.

(14) Clean location RDMO PU. 2hrs

(15) Notify James Madison (970-565-1351) to perform inspect and approve location before releasing roustabouts . 1hr

Total hrs (TA wellbore) – 31hrs + 4.5hrs (misc) = 36hrs

RECEIVED
AUG 0 1 2000
DIVISION OF
OIL, GAS AND MINING

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #2114
API #43-037-15753 SEC. 21 T41S R23E
SAN JUAN COUNTY, UTAH

OVERALL OBJECTIVE:
(1) POOH SB tbg
(2) RIH w/ treating pkr
(3) Pressure test plug, isolate lea k and spot balanced plug
(4) Pressure test csg to 1000# with no more than 5% loss in 30min

Csg size –5 ½", 14#, 15.5#, J55, 5950'

Surface csg – 13 3/8", 27.1#, 175',
8 5/8", 24#, J55, 1692'

EXISTING EQUIPMENT

Run time – 5/22/00

- 160jts of 2 7/8" CL tbg @4951' ave jt – 30.94ft
- RBP @ 5433'

160jts of cmt lined Tbg

Surface Csg Shoe @ 1692'

COMPLETION DATE: _____
TOTAL COST: _____

TOC 2800'

Lateral 2A1 – Details
Curve Section:
MD: 5629' – 5820'
TVD: 5629' – 5747'
Az: 130.7deg
Inc:90deg
Max dog leg:60@5660' &57.9 @5750'md

Lateral 1A1 Details
MD:5755'-5827'
TVD:5755'-5790'
AZ:322deg
Inc:96.5deg
Max dog leg: 166 @5781', 126 @5795', 125 @5775' & 5789' md

New Equipment

- cmt plug across potential csg leak interval
- 20ft cmt plug above RBP
- 10ft of sand above RBP
- RBP set @5433'

RBP @ 5433'

Lateral section 2A1– MD:5820-7443', TVD:5747'-5761', VS:1762, Az:126 deg, length:1623', max dog leg:7.8@7409', 6.7 deg at 5847', 6125'md

RECEIVED
AUG 0 1 2000
DIVISION OF
OIL, GAS AND MINING

Lateral Section 1A1– MD:5827'-6970', TVD:5790'-5750', VS:1159, AZ313deg, Length: 1143', max dog leg: 44 at 6340', 27 at 6330', 18 at 6430', 13 at 6420'

Perfs – sqz off - 5735' – 5904'

PBTD - 5755'
TD 5952'

Formation Tops
- Chinle 1695'
- Shinarump 2528'
- Dechelly 2815'
- Organ Rock 3018'
- Hermosa 4752'
- Ismay 5670'
- Gothic Shale 5716'
- Desert Creek 5726'

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603- 355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator
Mobil Producing TX. & N.M. Inc.

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358**
Houston TX 77210-4358

3b. Phone No. *(include area code)*
(713) 431-1197

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, T41S R23E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☒ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

Attached is a summary of work performed on Ratherford Unit #21W14 to temporarily abandon the well.

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Ellen M. Carroll**
Signature Ellen M Carroll

Title **Senior Staff Office Assistant**
Date **12/14/2000**

ExxonMobil Production Company,
A division of Exxon Mobil Corporation,
acting for Mobil Producing
Texas & New Mexico Inc.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attacheed. Approval of this notice 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.	Office	

Title 18 U.S.C. Section 1001, makes 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 Reverse)

RATHERFORD UNIT 21W14
COMPLETION REPORT
API #43-037-15753

2/29/00
MIRU. SICP-500#,SITP-250#. SI & SDFN

3/1/00
BLED WELL DOWN. REMOVE TREE. NU BOP. REL ON/OFF TOOL. CIRC WELL W/ 16.5# MUD. TEST BOP. TO 500#. OK. POOH & STAND BACK 2 7/8" CL TBG & ON/OFF TOOL. PU RIH W/ ON/OFF TOOL ON 2 7/8' PH-6 WS. LATCH ON TO PKR. SI & SDFN

3/2/00
PULL F PLUG FROM PROFILE. NO FLOW. REL. PKR. POOH W/ 20 STDS TBG. WELL STARTED FLOWING. SHUT IN. SICP-110#, SITP-80#. TAKE MUD FROM FLAT TANK TO MUD PLANT TO RAISE MUD WT. WILL CIRC NEW MUD IN AM. SI & SDFN

3/3/00
KILL WELL POOH W/ 2 7/8" & PROD PKR. RIH W/ 5 1/2" RBP ON 2 7/8" TBG. SET RBP @ 5510'. PULL 1 JT. CIRC OUT MUD W/ WTR. PRESS CSG TO 1000#. PRESS BUILDING SLIGHTLY. (POSSIBLE FLUID HEATING UP) BLED PRESS TO 0#. SI & SDFN

3/4/00
SICP-0#. NO PRESS BUILD-UP. PRESS TEST CSG TO 1000#. Lost 20# in 30 min. ok. DISPLACE OUT WTR. W/ 16.5# MUD. SI & SDFN-SUN.

3/6/00
REL. RBP. POOH W/ TBG & RBP. RIH W/ 5 1/2" PROD PKR. W/ PUMP OUT PLUG ON 2 7/8" TBG. SET PKR. W/ TOP @ 5507'. POOH & L/D W/ 100 JTS 2 7/8" WS. SI & SDFN

3/7/00
FINISH POOH & LD W/ 2 7/8"WS. RU TESTERS. RIH W/ ON/OFF TOOL ON 57 JTS 2 7/8" CL TBG-TEST CONCECTIONS TO 3500# W/ N2. SHUT DOWN DUE TO HIGH WINDS. SI & SDFN

3/8/00
FINISH TEST IN HOLE W/ 2 7/8" CL TBG. SPACE OUT. LATCH ON/OFF TOOL. ND BOP. NU TREE. SI & SDFN

3/9/00
REL.ON/OFF TOOL. CIRC OUT MUD W/ PKR FLUID. LATCH ON/OFF TOOL. NU TREE. PRESS/CHART ANL TO 1000# OK 30 MIN. PUMP OUT PUMP/OUT PLUG. FLOW BACK WELL. SI & SDFN

3/10/00
SITP-1900#,SICP-0#. RAN MIT FOR EPA. PRESS ANL TO 1040#. 15 MIN INTO TEST PRESS STARTED TO INCREASE. FAILED MIT. ATP TO BLEED OFF. FLOWING OUT ANL. SET PLUG IN ON/OFF TOOL PROFILE. BLED TBG TO 0#.ANL-2000#. SDFN

3/11/00
WELL SHUT IN FOR EVALUATION.
SITP-0#,SICP-2000#. RD ALL PUMPING EQUIPMENT. MOVE OUT RIG.
WELL SHUT IN FOR EVALUATION.

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

5/10/00
MI AND SPOT DDPU ON LOC,MI AND RU PUMP,FLAT TANK AND FRAC TANK.

5/11/00
WAIT ON MOTE TO TEST/SET ANCHORS, TOO WINDY TO RIG UP.

5/13/00
RIG UP DOUBLE DERRICK PULLING UNIT.

5/15/00
RU DS AND PERF TUBING @ 5099' W 7 HOLES, POH RD DS, HOLES PLUGGED, RU DS SHOOT TUBING @ 5098' WITH 7 HOLES, ATTEMPT TO CIRCULATE HOLE WITH 8.4#,NO LUCK, SI TUBING PRESSURE IS 2300#. KMW IS 17.8ppg.

5/16/00
PUMP 17.8 ppg KM TO KILL WELL, NDWH/NUBOP. TEST BOP,HYDRIL,VALVES. TEST OK. SHUT DOWN BECAUSE OF HIGH WINDS.

5/17/00
SHUT DOWN FOR 1 1/4 HRS BECAUSE OF WIND. RELEASE PKR POH TESTING INJ TBG. PU RBP, PKR, 175 JTS N-80 WS ANDRIH TO 5480'. SIFN

5/18/00
SET RBP @5510 AND TEST, CO KM TO FW AND TEST CASING 1040#/30 MIN HELD, POH W WS , RU SCHLUMBERGER AND RUN USI LOG COULD NOT GET PAST 5489',CASING COLLAPSED@ 5487'.RD SCHLUMBERGER,RIH W WS, SDFN.

5/19/00
CIRCULATE IN 17.1 ppg KM, MOVE RBP UP TO 5433' AND TEST, POH LAYING DOWN N-80 WORK STRING, RIH W OPEN ENDED CEMENT LINED TUBING. SHUT DOWN FOR NIGHT AND WEEKEND.

5/22/00
NIPPLE DOWN BOP/ NIPPLE UP WELL HEAD, CIRCULATE OUT 17.1 MUD WITH INHIBITED FW. TEST TO 1100# FOR 30 MIN. RIG DOWN DDPU. LAST REPORT THIS WELL .

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: July 31,1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603- 355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator
Mobil Producing TX. & N.M. Inc.

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358**
Houston TX 77210-4358

3b. Phone No. *(include area code)*
(713) 431-1197

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, T41S R23E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☒ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

Attached is a summary of work performed on Ratherford Unit #21W14 to temporarily abandon the well.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Ellen M. Carroll**

Title **Senior Staff Office Assistant**

ExxonMobil Production Company,
A division of Exxon Mobil Corporation,
acting for Mobil Producing
Texas & New Mexico Inc.

Signature *Ellen M Carroll*

Date **12/14/2000**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attacheed. Approval of this notice 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.	Office	

Title 18 U.S.C. Section 1001, makes 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 Reverse)

RATHERFORD UNIT 21W14
COMPLETION REPORT
API #43-037-15753

2/29/00
MIRU. SICP-500#,SITP-250#. SI & SDFN

3/1/00
BLED WELL DOWN. REMOVE TREE. NU BOP. REL ON/OFF TOOL. CIRC WELL W/ 16.5# MUD. TEST BOP. TO 500#. OK. POOH & STAND BACK 2 7/8" CL TBG & ON/OFF TOOL. PU RIH W/ ON/OFF TOOL ON 2 7/8' PH-6 WS. LATCH ON TO PKR. SI & SDFN

3/2/00
PULL F PLUG FROM PROFILE. NO FLOW. REL. PKR. POOH W/ 20 STDS TBG. WELL STARTED FLOWING. SHUT IN. SICP-110#, SITP-80#. TAKE MUD FROM FLAT TANK TO MUD PLANT TO RAISE MUD WT. WILL CIRC NEW MUD IN AM. SI & SDFN

3/3/00
KILL WELL POOH W/ 2 7/8" & PROD PKR. RIH W/ 5 1/2" RBP ON 2 7/8" TBG. SET RBP @ 5510'. PULL 1 JT. CIRC OUT MUD W/ WTR. PRESS CSG TO 1000#. PRESS BUILDING SLIGHTLY. (POSSIBLE FLUID HEATING UP) BLED PRESS TO 0#. SI & SDFN

3/4/00
SICP-0#. NO PRESS BUILD-UP. PRESS TEST CSG TO 1000#. Lost 20# in 30 min. ok. DISPLACE OUT WTR. W/ 16.5# MUD. SI & SDFN-SUN.

3/6/00
REL. RBP. POOH W/ TBG & RBP. RIH W/ 5 1/2" PROD PKR. W/ PUMP OUT PLUG ON 2 7/8" TBG. SET PKR. W/ TOP @ 5507'. POOH & L/D W/ 100 JTS 2 7/8" WS. SI & SDFN

3/7/00
FINISH POOH & LD W/ 2 7/8"WS. RU TESTERS. RIH W/ ON/OFF TOOL ON 57 JTS 2 7/8" CL TBG-TEST CONCECTIONS TO 3500# W/ N2. SHUT DOWN DUE TO HIGH WINDS. SI & SDFN

3/8/00
FINISH TEST IN HOLE W/ 2 7/8" CL TBG. SPACE OUT. LATCH ON/OFF TOOL. ND BOP. NU TREE. SI & SDFN

3/9/00
REL.ON/OFF TOOL. CIRC OUT MUD W/ PKR FLUID. LATCH ON/OFF TOOL. NU TREE. PRESS/CHART ANL TO 1000# OK 30 MIN. PUMP OUT PUMP/OUT PLUG. FLOW BACK WELL. SI & SDFN

3/10/00
SITP-1900#,SICP-0#. RAN MIT FOR EPA. PRESS ANL TO 1040#. 15 MIN INTO TEST PRESS STARTED TO INCREASE. FAILED MIT. ATP TO BLEED OFF. FLOWING OUT ANL. SET PLUG IN ON/OFF TOOL PROFILE. BLED TBG TO 0#.ANL-2000#. SDFN

3/11/00
WELL SHUT IN FOR EVALUATION.
SITP-0#,SICP-2000#. RD ALL PUMPING EQUIPMENT. MOVE OUT RIG.
WELL SHUT IN FOR EVALUATION.

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

ExxonMobil Production Comp
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

June 27, 2001

ExxonMobil
Production

Mr. Jim Thompson
State of Utah, Division of Oil, Gas and Mining
1549 West North Temple
Suite 1210
Salt Lake City, UT 84114-5801

Change of Name – Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Mr. Thompson

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

A copy of the Certification, Bond Rider and a list of wells are attached.

If you have any questions please feel free to call Joel Talavera at 713-431-1010

Very truly yours,

Charlotte H. Harper

Charlotte H. Harper
Permitting Supervisor

ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

RECEIVED
JUN 29 2001
DIVISION OF
OIL, GAS AND MINING

5/10/00
MI AND SPOT DDPU ON LOC,MI AND RU PUMP,FLAT TANK AND FRAC TANK.

5/11/00
WAIT ON MOTE TO TEST/SET ANCHORS, TOO WINDY TO RIG UP.

5/13/00
RIG UP DOUBLE DERRICK PULLING UNIT.

5/15/00
RU DS AND PERF TUBING @ 5099' W 7 HOLES, POH RD DS, HOLES PLUGGED, RU DS SHOOT TUBING @ 5098' WITH 7 HOLES, ATTEMPT TO CIRCULATE HOLE WITH 8.4#,NO LUCK, SI TUBING PRESSURE IS 2300#. KMW IS 17.8ppg.

5/16/00
PUMP 17.8 ppg KM TO KILL WELL, NDWH/NUBOP. TEST BOP,HYDRIL,VALVES. TEST OK. SHUT DOWN BECAUSE OF HIGH WINDS.

5/17/00
SHUT DOWN FOR 1 1/4 HRS BECAUSE OF WIND. RELEASE PKR POH TESTING INJ TBG. PU RBP, PKR, 175 JTS N-80 WS ANDRIH TO 5480'. SIFN

5/18/00
SET RBP @5510 AND TEST, CO KM TO FW AND TEST CASING 1040#/30 MIN HELD, POH W WS , RU SCHLUMBERGER AND RUN USI LOG COULD NOT GET PAST 5489',CASING COLLAPSED@ 5487'.RD SCHLUMBERGER,RIH W WS, SDFN.

5/19/00
CIRCULATE IN 17.1 ppg KM, MOVE RBP UP TO 5433' AND TEST, POH LAYING DOWN N-80 WORK STRING, RIH W OPEN ENDED CEMENT LINED TUBING. SHUT DOWN FOR NIGHT AND WEEKEND.

5/22/00
NIPPLE DOWN BOP/ NIPPLE UP WELL HEAD, CIRCULATE OUT 17.1 MUD WITH INHIBITED FW. TEST TO 1100# FOR 30 MIN. RIG DOWN DDPU. LAST REPORT THIS WELL .

RECEIVED
DEC 15 2000
DIVISION OF
OIL, GAS AND MINING

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603-247A

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.
RATHERFORD UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION WELL**

8. Well Name and No.
RATHERFORD UNIT 21W-14

2. Name of Operator
Exxon Mobil Corporation

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358**
Houston TX 77210-4358

3b. Phone No. *(include area code)*
(713) 431-1010

GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 460' FWL Section line. Sect 21, T41S R~~23~~24E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☒ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multitple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including recalmation, have been completed, and the operator has determined that the site is ready for final inspection.)

ExxonMobil request extension of TA status. This well is being evaluated to return to injection.

Accepted by the
Utah Division of
Oil, Gas and Mining

Date: 10/1/01
By: [signature]

10/1/2002

Federal Approval Of This
Action Is Necessary

COPY SENT TO OPERATOR
Date: 10-1-01
Initials: CHD

RECEIVED
SEP 26 2001
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Joel O. Talavera**
Signature [signature]

Title **Regulatory Specialist**
Date **09/25/2001**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attacheed. Approval of this notice 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.	Office	

Title 18 U.S.C. Section 1001, makes 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 Reverse)

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

☑ Well File _____ ☐ Suspense ☐ Other

Rutherford Unit Wells/McElmo Creek (Return Date) _____

(Loc.) Sec ____ Twp ____ Rng ____ (To-Initials) _____

(API No.) _____

1. Date of Phone Call: _____ Time: _____

2. DOGM Employee (name) Dustin Doucet (☑ Initiated Call)

Talked to:

Name Steve Mason (☐ Initiated Call) - Phone No. (505) 599-6364

of (Company/Organization) BLM - Farmington

3. Topic of Conversation: SI/TA Extension - is it justified where do the BLM stand?

4. Highlights of Conversation: Called Steve 7/19/01 15:45 left message Steve returned call 7/20/01 @ 10:30. He has approved the SI/TA's. Said it is a small percentage of SI's in area (~23 of over 300 in area) They are making progress on plugging SI wells in area. It is taking a while to put SI's on Injection waiting on results etc. Adequate info has been provided to BLM according to Steve.

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
XXXXXXXXXXXXXXXX
Navajo Area Office
NAVAJO REGION
P.O. Box 1060
Gallup, New Mexico 87305-1060

IN REPLY REFER TO:

RRES/543

AUG 30 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Charlotte H. Harper, Permitting Supervisor
Exxon Mobil Production Company
U. S. West
P. O. Box 4358
Houston, TX 77210-4358

Dear Ms. Harper:

This is to acknowledge receipt of your company's name change from Mobil Oil Corporation to ExxonMobil Oil Corporation effective June 1, 2001. The receipt of documents includes the Name Change Certification, current listing of Officers and Directors, Listing of Leases, Financial Statement, filing fees of $75.00 and a copy of the Rider for Bond Number 8027 31 97. There are no other changes.

Please note that we will provide copies of these documents to other concerned parties. If you need further assistance, you may contact Ms. Bertha Spencer, Realty Specialist, at (928) 871-5938.

Sincerely,

DENNIS DENETSONE

Regional Realty Officer

cc: BLM, Farmington Field Office w/enclosures
Navajo Nation Minerals Office, Attn: Mr. Akhtar Zaman, Director/w enclosures

MINERAL RESOURCES
ADM 1 BLM
NATV AM MIN COORD
SOLID MIN TEAM
PETRO MGMT TEAM 2
O & G INSPECT TEAM
ALL TEAM LEADERS
LAND RESOURCES
ENVIRONMENT
FILES

ExxonMobil Production Company
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

BS 7/12/2001

GN
543
File

June 27, 2001

ExxonMobil
Production

Certified Mail
Return Receipt Requested

RECEIVED
#477
JUL 9 - 2001
Navajo Region Office
RES - Minerals Section

Ms. Genni Denetsone
United States Department of the Interior
Bureau of Indian Affairs, Navajo Region
Real Estate Services
P. O. Box 1060
Gallup, New Mexico 87305-1060
Mail Code 543

Change of Name –
Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Ms. Denetsone:

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

Attached is the Name Change Certification, Current listing of Officers and Directors, Filing Fee of $75/-, Listing of Leases, Financial Statement and a copy of the Rider for Bond number 8027 31 97. The original Bond Rider has been sent to Ms. Barbar Davis at your Washington Office.

If you have any questions , please contact Alex Correa at (713) 431-1012.

Very truly yours,

Charlotte H. Harper

Charlotte H. Harper
Permitting Supervisor

Attachments

RECEIVED
JUL 05 2001
NAVAJO REGION OFFICE
BRANCH OF REAL ESTATE SERVICES

ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

NOTE: Check forwarded to Ella Isasi

Bureau of Indian Affairs
Navajo Region Office
Attn: RRES - Mineral and Mining Section
P.O. Box 1060
Gallup, New Mexico 87305-1060

Gentlemen:

The current listing of officers and director of ExxonMobil Oil Corporation (Name of Corporation), of New York (State) is as follows:

OFFICERS

President	F.A. Risch	Address 5959 Las Colinas Blvd. Irving, TX 75039
Vice President	K.T. Koonce	Address 800 Bell Street Houston, TX 77002
Secretary	F.L. Reid	Address 5959 Las Colinas Blvd. Irving, TX 75039
Treasure	B.A. Maher	Address 5959 Las Colinas Blvd. Irving, TX 75039

DIRECTORS

Name	D.D. Humphreys	Address 5959 Las Colinas Blvd. Irving, TX 75039
Name	P.A. Hanson	Address 5959 Las Colinas Blvd. Irving, TX 75039
Name	T.P. Townsend	Address 5959 Las Colinas Blvd. Irving, TX 75039
Name	B.A. Maher	Address 5959 Las Colinas Blvd. Irving, TX 75039
Name	F.A. Risch	Address 5959 Las Colinas Blvd. Irving, TX 75039

Sincerely,

Alex Correa

This is to certify that the above information pertaining to ExxonMobil Oil Corporation (Corporation) is trust and correct as evidenced by the records and accounts covering business for the State of Utah and in the custody of Corporation Service Company (Agent), Phone: 1 (800)927-9800, whose business address is One Utah Center, 201 South Main Street, Salt Lake City, Utah 84111-2218

(CORPORATE SEAL)

Signature

AGENT AND ATTORNEY IN FACT
Title

SAL

CERTIFICATION

I, the undersigned Assistant Secretary of ExxonMobil Oil Corporation. (formerly Mobil Oil Corporation), a corporation organized and existing under the laws of the State of New York, United States of America, DO HEREBY CERTIFY, That, the following is a true and exact copy of the resolutions adopted by the Board of Directors on May 22, 2001:

CHANGE OF COMPANY NAME

WHEREAS, the undersigned Directors of the Corporation deem it to be in the best interest of the Corporation to amend the Certificate of Incorporation of the Corporation to change the name and principal office of the Corporation:

NOW THEREFORE BE IT RESOLVED, That Article 1st relating to the corporate name is hereby amended to read as follows:

"1st The corporate name of said Company shall be,

ExxonMobil Oil Corporation",

FURTHER RESOLVED, That the amendment of the Corporation's Certificate of Incorporation referred to in the preceding resolutions be submitted to the sole shareholder of the Corporation entitled to vote thereon for its approval and, if such shareholder gives its written consent, pursuant to Section 803 of the Business Corporation Law of the State of New York, approving such amendment, the proper officers of the Corporation be, and they hereby are, authorized to execute in the name of the Corporation the Certificate of Amendment of Certificate of Incorporation, in the form attached hereto;

FURTHER RESOLVED, That the proper officers of the Corporation be and they hereby are authorized and directed to deliver, file and record in its behalf, the Certificate of Amendment of Certificate of Incorporation, and to take such action as may be deemed necessary or advisable to confirm and make effective in all respects the change of this Company's name to EXXONMOBIL OIL CORPORATION.

WITNESS, my hand and the seal of the Corporation at Irving, Texas, this 8th day of June, 2001.

S. A. Millican
Assistant Secretary

COUNTY OF DALLAS)
STATE OF TEXAS)
UNITED STATES OF AMERICA)
Sworn to and subscribed before me at Irving, Texas, U. S. A. on this the 8th day of June, 2001.

Janice M. Phillips
Notary Public

LISTING OF LEASES OF MOBIL OIL CORPORATION

	Lease Number
1)	14-20-0603-6504
2)	14-20-0603-6505
3)	14-20-0603-6506
4)	14-20-0603-6508
5)	14-20-0603-6509
6)	14-20-0603-6510
7)	14-20-0603-7171
8)	14-20-0603-7172A
9)	14-20-600-3530
10)	14-20-603-359
11)	14-20-603-368
12)	14-20-603-370
13)	14-20-603-370A
14)	14-20-603-372
15)	14-20-603-372A
16)	14-20-603-4495
17)	14-20-603-5447
18)	14-20-603-5448
19)	14-20-603-5449
20)	14-20-603-5450
21)	14-20-603-5451

6/1/01

CHUBB GROUP OF INSURANCE COMPANIES

[illegible] South, Suite [illegible], Houston, Texas [illegible]
[illegible] (713) 927-4600 • Facsimile: (713) 297-4750

NW Bond

FEDERAL INSURANCE COMPANY RIDER
to be attached to and form a part of

BOND NO 8027 31 97
wherein
Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc. is named as Principal and

FEDERAL INSURANCE COMPANY AS SURETY,

in favor of United States of America, Department of the Interior Bureau of Indian Affairs

in the amount of **$150,000.00**
bond date: 11/01/65

IT IS HEREBY UNDERSTOOD AND AGREED THAT effective **June 1, 2001** the name of the Principal is changed

FROM: **Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc.**

TO : **ExxonMobil Oil Corporation**

All other terms and conditions of this Bond are unchanged.

Signed, sealed and dated this 12th of June, 2001.

ExxonMobil Oil Corporation
By :

FEDERAL INSURANCE COMPANY
By: Mary Pierson
Mary Pierson, Attorney-in-fact

Chubb Surety

POWER OF ATTORNEY

Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

Attn.: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That **FEDERAL INSURANCE COMPANY,** an Indiana corporation, **VIGILANT INSURANCE COMPANY,** a New York corporation, and **PACIFIC INDEMNITY COMPANY,** a Wisconsin corporation, do each hereby constitute and appoint

Mary Pierson, Philana Berros, and Jody E. Specht of Houston, Texas---------- R.F. Bobo,

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY,** and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this 10th day of May, 2001.

Kenneth C. Wendel, Assistant Secretary

Frank E. Robertson, Vice President

STATE OF NEW JERSEY
County of Somerset } ss.

On this 10th day of May, 2001, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Frank E. Robertson, and knows him to be Vice President of said Companies; and that the signature of Frank E. Robertson, subscribed to said Power of Attorney is in the genuine handwriting of Frank E. Robertson, and was thereto subscribed by authority of said Companies in deponent's presence.

Karen A. Price
Notary Public State of New Jersey
No. 2231647
Commission Expires Oct. 28, 2004

Notarial Seal

Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

(i) the foregoing extract of the By-Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 12th day of June, 2001.

FEDERAL INSURANCE COMPANY · INDIANA · PACIFIC INDEMNITY COMPANY · WISCONSIN · VIGILANT INSURANCE COMPANY · NEW YORK

Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

15-10-0225 (Ed. 4-99) CONSENT

F010601000187

CSC 45

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION

OF

MOBIL OIL CORPORATION

(Under Section 805 of the Business Corporation Law)

Pursuant to the provisions of Section 805 of the Business Corporation Law, the undersigned President and Secretary, respectively, of Mobil Oil Corporation hereby certify:

FIRST: That the name of the corporation is MOBIL OIL CORPORATION and that said corporation was incorporated under the name of Standard Oil Company of New York.

SECOND: That the Certificate of Incorporation of the corporation was filed by the Department of State, Albany, New York, on the 10th day of August, 1882.

THIRD: That the amendments to the Certificate of Incorporation effected by this Certificate are as follows:

(a) Article 1st of the Certificate of Incorporation, relating to the corporate name, is hereby amended to read as follows:

"1st The corporate name of said Company shall be,

ExxonMobil Oil Corporation",

(b) Article 7th of the Certificate of Incorporation, relating to the office of the corporation is hereby amended to read as follows:

The office of the corporation within the State of New York is to be located in the County of Albany. The Company shall have offices at such other places as the Board of Directors may from time to time determine.

FOURTH: That the amendments to the Certificate of Incorporation were authorized by the Board of Directors followed by the holder of all outstanding shares entitled to vote on amendments to the Certificate of Incorporation by written consent of the sole shareholder dated May 22, 2001.

IN WITNESS WHEREOF, this Certificate has been signed this 22nd Day of May, 2001.

F. A. Risch, President

STATE OF TEXAS)
COUNTY OF DALLAS)

F. L. REID, being duly sworn, deposes and says that he is the Secretary of MOBIL OIL CORPORATION, the corporation mentioned and described in the foregoing instrument; that he has read and signed the same and that the statements contained therein are true.

F. L. REID, Secretary

SUBSCRIBED AND SWORN TO before me, the undersigned authority, on this the 22nd day of May, 2001.

[SEAL]

NOTARY PUBLIC, STATE OF TEXAS

JANICE M. PHILLIPS
MY COMMISSION EXPIRES
May 16, 2002

CSC 5184334741 06/01 '01 09:01 NO.411 02/02
CSC 06/01 '01 09:06 NO.135 04/04

F010601000187

CSC 45

CERTIFICATE OF AMENDMENT

OF

MOBIL OIL CORPORATION

Under Section 805 of the Business Corporation Law

SAC

100 cc

STATE OF NEW YORK
DEPARTMENT OF STATE
FILED JUN 01 2001
TAX $
BY: SAC
NY | Albany

Filed by: EXXONMOBIL CORPORATION
(Name)

5959 Las Colinas Blvd.
(Mailing address)

Irving, TX 75039-2298
(City, State and Zip code)

Cust Ref # 165578 MPJ

RECEIVED
JUL 05 2001
[illegible] SERVICES

010601000195

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold) — Designation of Agent

X Operator Name Change — Merger

The operator of the well(s) listed below has changed, effective: **06-01-2001**

FROM: (Old Operator):	**TO:** (New Operator):
MOBIL EXPLORATION & PRODUCTION	EXXONMOBIL OIL CORPORATION
Address: P O BOX DRAWER "G"	Address: U S WEST P O BOX 4358
CORTEZ, CO 81321	HOUSTON, TX 77210-4358
Phone: 1-(970)-564-5212	Phone: 1-(713)-431-1010
Account No. N7370	Account No. N1855

CA No. **Unit:** **RATHERFORD**

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
RATHERFORD U 19W21	19-41S-24E	43-037-15741	6280	INDIAN	WI	A
DSRT A-26 (RATHERFORD 19W23)	19-41S-24E	43-037-15742	99990	INDIAN	WI	A
RATHERFORD U 19-32	19-41S-24E	43-037-15743	6280	INDIAN	WI	A
RATHERFORD U 19-34	19-41S-24E	43-037-15744	6280	INDIAN	WI	A
DESERT A-24 (RATHERFORD 19W41)	19-41S-24E	43-037-15745	99990	INDIAN	WI	A
DESERT A-23 (RATHERFORD 19W43)	19-41S-24E	43-037-16420	99990	INDIAN	WI	A
RATHERFORD U 20-12	20-41S-24E	43-037-15746	6280	INDIAN	WI	I
RATHERFORD U 20-14	20-41S-24E	43-037-15747	6280	INDIAN	WI	A
DESERT A-18 (RATHERFORD 20W23)	20-41S-24E	43-037-15748	99990	INDIAN	WI	A
RATHERFORD U 20-32	20-41S-24E	43-037-15749	6280	INDIAN	WI	A
RATHERFORD U 20-34	20-41S-24E	43-037-15750	6280	INDIAN	WI	A
RATHERFORD 20W41 (DESERT A-27)	20-41S-24E	43-037-15751	99990	INDIAN	WI	A
RATHERFORD 20-67	20-41S-24E	43-037-31590	6280	INDIAN	WI	A
RATHERFORD U 21-14	21-41S-24E	43-037-15753	6280	INDIAN	WI	I
RATHERFORD UNIT 21-67	21-41S-24E	43-037-31753	6280	INDIAN	WI	A
RATHERFORD UNIT 28-12	28-41S-24E	43-037-15336	6280	INDIAN	WI	A
NAVAJO A-19 (RATHERFORD 28W21)	28-41S-24E	43-037-16431	99990	INDIAN	WI	A
RATHERFORD U 29-12	29-41S-24E	43-037-15337	6280	INDIAN	WI	A
RATHERFORD U 29-32	29-41S-24E	43-037-15339	6280	INDIAN	WI	A
RATHERFORD 29W21	29-41S-24E	43-037-16432	99990	INDIAN	WI	A
NAVAJO B-5 (RATHERFORD 30W41)	30-41S-24E	43-037-15343	99990	INDIAN	WI	A
NAVAJO B-16 (RATHERFORD 30W21)	30-41S-24E	43-037-16435	99990	INDIAN	WI	I

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 06/29/2001
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 06/29/2001
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database on:** 04/09/2002
4. Is the new operator registered in the State of Utah: YES Business Number: 579865-0143

5. If **NO**, the operator was contacted contacted on: N/A

6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BIA-06/01/01

7. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 06/01/2001

8. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

9. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A
NOTE: EPA ISSUES UIC PERMIT

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 04/11/2002
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 04/11/2002
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: N/A

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: N/A

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 80273197

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

State of New York }
Department of State } *ss:*

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on JUN 01 2001

Special Deputy Secretary of State

DOS-1266 (7/00)

Form 3160-5
(September 2001)

Permits

JUL 29 2003

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

2003 JUL 11 AM 9:53

070 Farmington, NM

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
14-20-603-355

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other **Injection Well**

8. Well Name and No.
Ratherford Unit 21W-14

2. Name of Operator
Exxon Mobil Corporation

9. API Well No.
43-037-15753

3a. Address **P.O. Box 4358 Houston TX 77210-4358**

3b. Phone No. (include area code) **(281) 654-1936**

10. Field and Pool, or Exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL & 460' FWL
Sec 21 T41S R24E SW/SW

11. County or Parish, State
SAN JUAN UT

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☒ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

6/25/03 JSC, JSA, MIRU, spot equipment, RU hardlines, bled off well, ND tree, NUBOP, SION.

6/26/03 JSC, JSA, called Navajo Mineral and left message with Wallace Ashley on plans for digging a pit. Test BOP against wrap around, tested good. POOH LD wrap around. PU 12 jts, tagged sand @ 5315', test csg to 1000 #, bled off 100# in 30 mins. POOH SB 160 jts (4934'), cmt lined tbg. PU RBP, 1 jt WS, & packer. RIH w 12 jts from derrick, PU 157 jts, tagged sand. PU & set RBP @ 5285'. POOH w/ 2 jts, set packer, test RBP 1000#, test good, test csg 1000#, held good, bled pressure off, retest in AM, SION. EPA MAY REQUIRE A TEMPERATURE LOG RAN IN THIS WELL AS A TEST OF THE MECHANICAL INTEGRITY. - AFTER INJECTION HAS BEEN RESUMED FOR AT LEAST 30 DAYS.

ExxonMobil Production Company
a division of Exxon Mobil Corporation, acting for
Mobil Producing Texas and New Mexico, Inc.

JIM WALKER.

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

SEE ATTACHMENT FOR ADDITIONAL REMARKS

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed) **Tiffany A. Stebbins**
Title **Staff Office Assistant**
Signature Tiffany Stebbins
Date **07/10/2003**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Title
Date
Office

ACCEPTED FOR RECORD
JUL 24 2003
FARMINGTON FIELD OFFICE

Conditions of approval, if any, are attached. Approval of this notice 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.

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 Reverse)

OPERATOR

ATTACHMENT

Form 3160-5
August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
2003 JUL 11 AM 9: 53
070 Farmington, NM

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other **Injection Well**
2. Name of Operator: **Exxon Mobil Corporation**
3a. Address: **P.O. Box 4358, Houston TX 77210-4358**
3b. Phone No. *(include area code)*: **(281) 654-1936**
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): **660' FSL & 460' FWL**
Sec 21 T41S R24E SW/SW
5. Lease Serial No.: **14-20-603-355**
6. If Indian, Allottee or Tribe Name: **NAVAJO TRIBAL**
7. If Unit or CA/Agreement, Name and/or No.: **Ratherford Unit**
8. Well Name and No.: **Ratherford Unit 21W-14**
9. API Well No.: **43-037-15753**
10. Field and Pool, or Exploratory Area: **GREATER ANETH**
11. County or Parish, State: **SAN JUAN UT**

Additional Remarks

6/27/03 JSC, JSA, retest RBP and csg, both test good at 1000# for 30 mins. Release packer and RBP, reset packer, test below 5253' to 5433', tested good. Release packer, POOH SB 169 jts, LD packer, 1 jt, and RBP. MIRU WLSU, RU BOP and Lubricator, test BOP and lubricator, RIH w/ Jet 4" Perf HSC 8 holes, set at 1750', dug out braden head valve. Perforate 5.5 csg, POOH, close Ram to establish circ between 5.5 and 8.5/8, pump 20 bbls circ, RDWLU, MO. PU CICR, RIH w/ 55 jts, set CICR at 1714', test CICR, test good, latch out and latch back in. SION called BLM Steve Mason to notify that we were doing a squeeze in the morning. He preferred that I call Navaja Minerals, called & left message with Wallace Ashley at 1400 hrs.

[illegible]8/03 JSC, JSA, MIRU Schlumberger, Safety mtg, start braden head squeeze, pump 6 bbls fresh water, green dye, start cement pump 71 bbls cement 240 sx 65/35 G:poz w/ 6% d20 w/ additives) @ 3.32 bpm, avg 280 PSI, density 12.7 #, displace 10.5 bbls. Good cement return out braden head valve. SI valve, sting out LD 2 jts, start reversal w/ pump 20 bbls, RD hard line, POOH w/ 55 jts total. RDMO Schlumberger. SD

6/30/03 JSC, JSA, too windy to PU tools. Wait out till afternoon. PU bit, 6 DC tagged @ 1680' drill down to 1714', top CICR. SION.

7/01/03 JSC, JSA, continue to DO cement 1714' down to 1770', RD swivel, RIH tagged sand @ 5304', PU swivel, wash down to 5400', tagged RBP at 5400', circ sand till cleaned up (1.5 hrs.), POOH SB 24 jts, SION.

7/02/03 JSC, JSA, POOH LD DC and bit, PU RBP retrieving head, RIH, circ 120 bbls 17.6# KWF, latch onto RBP, release RBP, POOH, LD RBP, PU Arrow set 1 packer, RIH, set packer at 5500', POOH LD 2 jts, SION

7/03/03 JSC, JSA, POOH LD 175 jts, (Total 177jts). PU on-off tool, RIH w/ 158 jts from derrick, PU 19 jts off trailer, space out, PU 8' sub, PU wrap around, latch on, SD for the weekend and Holiday. BHA: WL re-entry (.33) @ 5495.77, 5 1/2 Arrow Set 1 (7.3) 5488.47, T-2 w/ 1.81 (1.33) 5486.14, 176 jts cmt (5436.47), 8' sub, 1 landing jt (31.14) with wrap around.

7/04/03 - 7/06/03 Shut in for holiday and weekend.

7/07/03 JSA, JSC. Latch back on, check on spacing, OK. Called Jim Walker, Steve Mason and Davis Benally with the Navajo Nation Minerals dept. and left them messages on 21W-14 job. Latch back out. Pump and roll out the KWF. Clean out wellbore with fresh water. Pressure test lines to 5000 psi, started pumping down tbg w/ cement slurry density @ 15.8 LB/G, tolerance +/- .4 LB/G, actual average density 15.9 LB/G, 95% within tolerance, end cement slurry at [illegible]73 bbls. Displace tubing with fresh water (24.9 bbls). Circulated out from casing 2.4 bbls into pit. Latched back on [illegible]off tool. RU slickline unit, tested Lubercator, ran in hole, rupture the disc, came back out, ran in hole retrieve 1.81 plug. Nipple up choke to back flow 30 bbls, NU wire line unit, test Lubercator, went back in and set the 1.81 plug and have Cameron set BPV, nipple down BOPE and NU Wellhead Tree. Retrieved BPV and NU Wireline Unit, retrieve the plug. End of Job, Tubing pressure had 1700# and 0# on Casing.

Current Wellbore Schematic

Well: Ratherford Unit 21140101

Field: Greater Aneth Area

W:\WELLVIEW.70\REPORTS\Network\Business Unit\Schematics\Current WB Schematic

ExxonMobil Production Company

Well Header

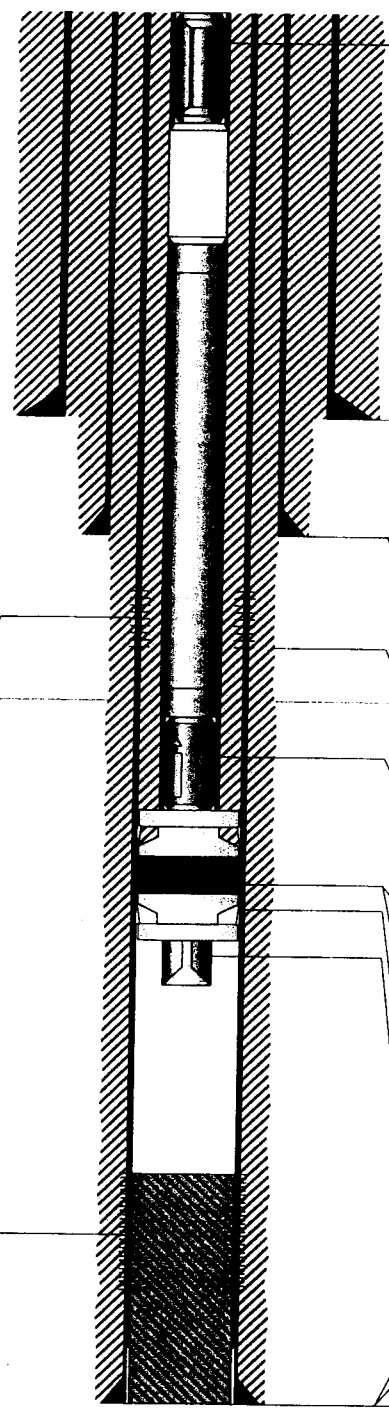
Lease	District/County	State/Province	Last Mod By	Last Mod Date (GMT)
Ratherford Unit	San Juan	Utah	datamgmt	10/31/03

Surface Legal Location	Legal Survey Type	UDB WLBR_ID	UDB SRFC_SITE_ID
Section: 28; T41S, R24E		430371575300	4303715753

KB Elevation (ft)	KB-Grd (ft)	Gr Elev (ft)	Well Type	Spud Date	Basin	Current Well Status
4978.00	11.00	4967.00	Injection	8/26/58		Abandoned Injection

Ratherford Unit 21140101: 7/3/03

ftKB (MD)	Incl	ftKB (TVD)	Schematic - Actual	Actual P S D Cr
0				
30				
31				
38				
39				
100				
167				
168				
690				
1692				
1700				
1702				
5486				
5487				
5488				
5488				
5495				
5495				
5496				
5629				
5735				
5814				
04				
5949				
5952				



This is a multi-lateral completion

Perf, 6/27/03, 1,700-1,702ftKB

Lateral #2 f/ 5629'-7443' MD w/ window f/ 5622'-5629'

Lateral # 1 f/5735'-6970' MD w/window f/ 5730'-5755'

Perf, 9/26/58, 5,735-5,904ftKB

Landing Nipple, 0ftKB

Primary Single, 0-168ftKB

OD:13 3/8in, Des:Conductor Pipe, Btm (MD):168ftKB, Wt.:27.10lbs/ft

Primary Single, 0-1,692ftKB

OD:8 5/8in, Des:Intermediate Casing, Btm (MD):1,692ftKB, Wt.:24.00lbs/ft

Casing cement, 0-1,702ftKB

Profile Nipple, 5,486ftKB

Primary Single, 0-5,488ftKB

OD:2 7/8in, Des:Liner - Production, Btm (MD):5,488ftKB, Wt.:6.50lbs/ft, ID:2.441in

Packer - Retrievable, 5,487ftKB

Re-Entry Guide - Wireline, 5,495ftKB

Primary Single, 2,800-5,952ftKB

Plug, 5,735-5,952ftKB

OD:5 1/2in, Des:Production Casing, Btm (MD):5,952ftKB, Wt.:15.50lbs/ft

NOTE: To change schematic view, select the schematic tab and choose desired schematic layout from pull down list

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW

X Change of Operator (Well Sold) Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective: **6/1/2006**

FROM: (Old Operator):	**TO:** (New Operator):
N1855-ExxonMobil Oil Corporation	N2700-Resolute Natural Resources Company
PO Box 4358	1675 Broadway, Suite 1950
Houston, TX 77210-4358	Denver, CO 80202
Phone: 1 (281) 654-1936	Phone: 1 (303) 534-4600

CA No. **Unit:** **RATHERFORD (UIC)**

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/21/2006
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/24/2006
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/7/2006
4. Is the new operator registered in the State of Utah: YES Business Number: 5733505-0143
5. If **NO**, the operator was contacted contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: requested

6b. Inspections of LA PA state/fee well sites complete on: n/a

6c. Reports current for Production/Disposition & Sundries on: ok

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM n/a BIA not yet
8. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: not yet
9. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/12/2006

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 6/22/2006
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 6/22/2006
3. Bond information entered in RBDMS on: n/a
4. Fee/State wells attached to bond in RBDMS on: n/a
5. Injection Projects to new operator in RBDMS on: 6/22/2006
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: n/a
2. Indian well(s) covered by Bond Number: PA002769
3. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a

a. The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See attached list	API Number Attached
Location of Well Footage : See attached list County : San Juan QQ, Section, Township, Range: State : UTAH	Field or Unit Name Ratherford Unit Lease Designation and Number See attached list

EFFECTIVE DATE OF TRANSFER: 6/1/2006

CURRENT OPERATOR

Company: Exxon Mobil Oil Corporation
Address: PO Box 4358
city Houston state TX zip 77210-4358
Phone: (281) 654-1936
Comments: Exxon Mobil has submitted a separate, signed copy of UIC Form 5

Name:
Signature:
Title:
Date:

NEW OPERATOR

Company: Resolute Natural Resources Company
Address: 1675 Broadway, Suite 1950
city Denver state CO zip 80202
Phone: (303) 534-4600
Comments: A list of affected UIC wells is attached.
New bond numbers for these wells are:
BIA Bond # PA002769 and US EPA Bond # B001252

Name: Dwight E Mallory
Signature:
Title: Regulatory Coordinator
Date: 4/20/2006

(This space for State use only)

Transfer approved by:
Title: Field Operations Manager
Approval Date: 6/12/06

Comments:

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: See attached list
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo Tribe
7. UNIT or CA AGREEMENT NAME: Ratherford Unit
8. WELL NAME and NUMBER: See attached list
9. API NUMBER: Attached
10. FIELD AND POOL, OR WILDCAT: Greater Aneth

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Unit Agreement

2. NAME OF OPERATOR: Resolute Natural Resources Company N2700

3. ADDRESS OF OPERATOR: 1675 Broadway, Suite 1950 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 534-4600

4. LOCATION OF WELL
FOOTAGES AT SURFACE: See attached list COUNTY: San Juan
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 1, 2006 Exxon Mobil Oil Corporation resigns as operator of the Ratherford Unit. Also effective June 1, 2006 Resolute Natural Resources Company is designated as successor operator of the Ratherford Unit.

A list of affected producing and water source wells is attached. A separate of affected injection wells is being submitted with UIC Form 5, Transfer of Authority to Inject.

As of the effective date, bond coverage for the affected wells will transfer to BIA Bond # PA002769.

NAME (PLEASE PRINT) Dwight E Mallory TITLE Regulatory Coordinator
SIGNATURE DATE 4/20/2006

(This space for State use only)

APPROVED 6/27/06
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ship Rock

7. UNIT or CA AGREEMENT NAME: UTU68931A

8. WELL NAME and NUMBER: Ratherford

9. API NUMBER: attached

10. FIELD AND POOL, OR WILDCAT: Aneth

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Injection

2. NAME OF OPERATOR: ExxonMobil Oil Corporation N1855

3. ADDRESS OF OPERATOR: P.O. Box 4358 CITY Houston STATE TX ZIP 77210-4358 PHONE NUMBER: (281) 654-1936

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY: San Juan

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
6/1/2006	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ExxonMobil Oil Corporation is transferring operatorship of Greater Aneth field, Ratherford lease to Resolute Natural Resources Company. All change of operator notices should be made effective as of 7:00 AM MST on June 1, 2006.

Attached please find a listing of injection wells included in the transfer.

NAME (PLEASE PRINT) Laurie Kilbride TITLE Permitting Supervisor

SIGNATURE Laurie O. Kilbride DATE 4/19/2006

(This space for State use only) APPROVED 6/27/06
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

RECEIVED
APR 21 2006
DIV. OF OIL, GAS & MINING

(5/2000)

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	1W24	430371583900S1	Shut-in	14-20-603-246A	NE	SE	1	41S	23E	0651FSL	3300FEL
RATHERFORD UNIT	2W44	430371638600S1	Active	14-20-603-246A	SE	SE	2	41S	23E	0810FSL	**0510FEL**
RATHERFORD UNIT	11W42	430371584100S1	Active	14-20-603-246A	SE	NE	11	41S	23E	3290FSL	4617FWL
RATHERFORD UNIT	11W44	430371584200S1	Shut-in	14-20-603-246A	SE	SE	11	41S	23E	0660FSL	0558FEL
RATHERFORD UNIT	12W11	430371584300S1	Active	14-20-603-246A	NW	NW	12	41S	23E	0678FNL	4620FEL
RATHERFORD UNIT	12W13	430371640400S1	Active	14-20-603-246A	NW	SW	12	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	12W22	430371584501S1	Active	14-20-603-246A	SE	NW	12	41S	23E	1920FNL	2080FWL
RATHERFORD UNIT	12W24	430373115101S1	Active	14-20-603-246A	SE	SW	12	41S	23E	0775FSL	1980FWL
RATHERFORD UNIT	12W31	430371584700S1	Active	14-20-603-246A	NW	NE	12	41S	23E	0661FNL	1981FEL
RATHERFORD UNIT	12W33	430371584800S1	Active	14-20-603-246A	NW	SE	12	41S	23E	1958FSL	3300FEL
RATHERFORD UNIT	12W42	430371585000S1	Active	14-20-603-246A	SE	NE	12	41S	23E	3275FSL	0662FEL
RATHERFORD UNIT	12W44A	430373154300S1	Shut-in	14-20-603-246A	SE	SE	12	41S	23E	0772FSL	0807FEL
RATHERFORD UNIT	13W11	430373115201S1	Active	14-20-603-247A	NW	NW	13	41S	23E	0500FNL	0660FWL
RATHERFORD UNIT	13W13	430371585100S1	Active	14-20-603-247A	NW	SW	13	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	13W22	430371585200S1	Active	14-20-603-247A	SE	NW	13	41S	23E	1988FNL	3300FEL
RATHERFORD UNIT	13W24	430371585300S1	Active	14-20-603-247A	SE	SW	13	41S	23E	0660FSL	3300FEL
RATHERFORD UNIT	13W33	430371585501S1	Active	14-20-603-247A	NW	SE	13	41S	23E	1970FSL	1979FEL
RATHERFORD UNIT	13W42	430371585700S1	Shut-in	14-20-603-247A	SE	NE	13	41S	23E	2139FNL	0585FEL
RATHERFORD UNIT	13W44	430371640700S1	Active	14-20-603-247A	SE	SE	13	41S	23E	0653FSL	0659FEL
RATHERFORD UNIT	14-31	430373171700S1	Active	14-20-603-247A	NW	NE	14	41S	23E	0754FNL	1604FEL
RATHERFORD UNIT	14W42	430371586001S1	Active	14-20-603-247A	SE	NE	14	41S	23E	1976FNL	653FEL
RATHERFORD UNIT	24W31	430371586200S1	Shut-in	14-20-603-247A	NW	NE	24	41S	24E	0560FNL	1830FEL
RATHERFORD UNIT	24W42	430371586300S1	Shut-in	14-20-603-247A	SE	NE	24	41S	24E	1980FNL	0660FEL
RATHERFORD UNIT	17W12	430371572601S1	Active	14-20-603-353	SW	NW	17	41S	24E	1980FNL	510FWL
RATHERFORD UNIT	17W14	430371572700S1	Active	14-20-603-353	SW	SW	17	41S	24E	0610FSL	0510FWL
RATHERFORD UNIT	17W21	430371641601S1	Active	14-20-603-353	NE	**NW**	17	41S	24E	0510FNL	1830FWL
RATHERFORD UNIT	17W23	430371572801S1	Active	14-20-603-353	NE	SW	17	41S	24E	1880FSL	1980FWL
RATHERFORD UNIT	17W32	430371572900S1	TA'd	14-20-603-353	SW	NE	17	41S	24E	1830FNL	2030FEL
RATHERFORD UNIT	17W34	430371573000S1	Active	14-20-603-353	SW	SE	17	41S	24E	0560FSL	1880FEL
RATHERFORD UNIT	17W41	430371573100S1	Shut-in	14-20-603-353	NE	NE	17	41S	24E	0610FNL	0510FEL
RATHERFORD UNIT	17W43	430371641701S1	Active	14-20-603-353	NE	SE	17	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	18-43B	430373171801S1	Active	14-20-603-353	NE	SE	18	41S	24E	2023FSL	0651FEL
RATHERFORD UNIT	18W12	430373115301S1	Active	14-20-603-353	SW	NW	18	41S	24E	1980FNL	560FWL
RATHERFORD UNIT	18W14	430371573501S1	Active	14-20-603-353	SW	SW	18	41S	24E	0810FSL	0600FWL
RATHERFORD UNIT	18W21	430371641801S1	Active	14-20-603-353	NE	NW	18	41S	24E	660FNL	1882FWL
RATHERFORD UNIT	18W23	430373024400S1	Shut-in	14-20-603-353	NE	SW	18	41S	24E	2385FSL	2040FWL
RATHERFORD UNIT	18W32	430371573601S1	Active	14-20-603-353	SW	NE	18	41S	24E	2140FNL	1830FEL
RATHERFORD UNIT	18W34	430371573701S1	Active	14-20-603-353	SW	SE	18	41S	24E	780FSL	1860FEL
RATHERFORD UNIT	18W41	430371573800S1	TA'd	14-20-603-353	NE	NE	18	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	19-12	430371573901S1	Active	14-20-603-353	SW	NW	19	41S	24E	1980FNL	0600FWL
RATHERFORD UNIT	19-32	430371574301S1	Active	14-20-603-353	SW	NE	19	41S	24E	2717FNL	2802FEL
RATHERFORD UNIT	19-34	430371574401S1	Active	14-20-603-353	SW	SE	19	41S	24E	0660FSL	1980FEL
RATHERFORD UNIT	19W21	430371574100S1	Shut-in	14-20-603-353	NE	NW	19	41S	24E	0660FNL	1860FWL
RATHERFORD UNIT	19W23	430371574200S1	Shut-in	14-20-603-353	NE	SW	19	41S	24E	2080FSL	1860FWL
RATHERFORD UNIT	19W43	430371642000S1	Shut-in	14-20-603-353	NE	SE	19	41S	24E	1980FSL	0760FEL
RATHERFORD UNIT	20-12	430371574601S1	Active	14-20-603-353	SW	NW	20	41S	24E	0709FNL	0748FEL
RATHERFORD UNIT	20-14	430371574701S1	Active	14-20-603-353	SW	SW	20	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	20-32	430371574901S1	Active	14-20-603-353	SW	NE	20	41S	24E	0037FNL	0035FWL
RATHERFORD UNIT	20-34	430371575001S1	Active	14-20-603-353	SW	SE	20	41S	24E	0774FNL	0617FWL
RATHERFORD UNIT	20-67	430373159000S1	Active	14-20-603-353	NE	SW	20	41S	24E	2629FSL	1412FWL
RATHERFORD UNIT	20W21	430371642300S1	Active	14-20-603-353	NE	NW	20	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	20W23	430371574800S1	Active	14-20-603-353	NW	SW	20	41S	24E	2080FSL	2120FWL
RATHERFORD UNIT	20W41	430371575100S1	Active	14-20-603-353	NE	NE	20	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	20W43	430371642400S1	TA'd	14-20-603-353	NE	SE	20	41S	24E	2070FSL	0810FEL
RATHERFORD UNIT	16W12	430371572000S1	Active	14-20-603-355	SW	NW	16	41S	24E	1880FNL	0660FWL

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	16W14	430371572100S1	Shut-in	14-20-603-355	SW	SW	16	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	16W21	430371641400S1	Active	14-20-603-355	NE	NW	16	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	16W23	430371572201S1	Active	14-20-603-355	NE	SW	16	41S	24E	1980FSL	1980FWL
RATHERFORD UNIT	16W43	430371641501S1	Active	14-20-603-355	NE	SE	16	41S	24E	2140FSL	0820FEL
RATHERFORD UNIT	21-14	430371575301S1	Active	14-20-603-355	SW	SW	21	41S	24E	0660FSL	0460FWL
RATHERFORD UNIT	21-67	430373175301S1	Active	14-20-603-355	NE	SW	21	41S	24E	2560FSL	1325FWL
RATHERFORD UNIT	21W21	430371642501S1	Active	14-20-603-355	NE	NW	21	41S	24E	0660FNL	2030FWL
RATHERFORD UNIT	**6W14**	430371598400S1	Active	14-20-603-368	NE	SE	6	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	7W12	430371598500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2140FNL	0585FWL
RATHERFORD UNIT	7W14	430371598600S1	Active	14-20-603-368	NE	SE	7	41S	24E	1065FSL	0660FWL
RATHERFORD UNIT	7W21	430371639400S1	Active	14-20-603-368	**NE**	NW	7	41S	24E	0710FNL	1820FWL
RATHERFORD UNIT	7W34	430371598900S1	Active	14-20-603-368	SW	SE	7	41S	24E	0710FSL	2003FEL
RATHERFORD UNIT	7W43	430371639500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2110FSL	0660FEL
RATHERFORD UNIT	**8W14**	430371599200S1	Active	14-20-603-368	SW	NE	8	41S	24E	0745FSL	0575FWL
RATHERFORD UNIT	10W43	430371640300S1	TA'd	14-20-603-4037	NE	SE	10	41S	24E	1980FSL	0550FEL
RATHERFORD UNIT	29-12	430371533701S1	Active	14-20-603-407	SW	**NW**	29	41S	24E	2870FNL	1422FWL
RATHERFORD UNIT	29-32	430371533901S1	Active	14-20-603-407	SW	NE	29	41S	24E	0694FNL	0685FWL
RATHERFORD UNIT	29W21	430371643200S1	Active	14-20-603-407	NE	NW	29	41S	24E	0667FNL	2122FWL
RATHERFORD UNIT	29W41	430371643300S1	Active	14-20-603-407	NE	NE	29	41S	24E	0557FNL	0591FEL
RATHERFORD UNIT	29W43	430371643400S1	Shut-in	14-20-603-407	NE	SE	29	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	30W41	430371534300S1	Shut-in	14-20-603-407	NE	NE	30	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	28-12	430371533601S1	Active	14-20-603-409	SW	SE	28	41S	24E	2121FNL	0623FWL
RATHERFORD UNIT	28W21	430371643100S1	Shut-in	14-20-603-409	NE	NW	28	41S	24E	0660FNL	2022FWL
RATHERFORD UNIT	9W23	430371639800S1	Active	14-20-603-5046	NW	SE	9	41S	24E	1980FSL	1980FWL

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-603-355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO

7.UNIT or CA AGREEMENT NAME: RATHERFORD

1. TYPE OF WELL
Water Injection Well

8. WELL NAME and NUMBER: RATHERFORD U 21-14

2. NAME OF OPERATOR:
RESOLUTE NATURAL RESOURCES

9. API NUMBER: 43037157530000

3. ADDRESS OF OPERATOR:
1700 Lincoln Street, Suite 2800 , Denver, CO, 80203 4535

PHONE NUMBER: 303 534-4600 Ext

9. FIELD and POOL or WILDCAT: GREATER ANETH

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0660 FSL 0460 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSW Section: 21 Township: 41.0S Range: 24.0E Meridian: S

COUNTY: SAN JUAN

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 10/10/2014	✓ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Resolute Natural Resources respectfully submits this sundry as notice of acidizing the above well, attached are the procedures and schematic

Accepted by the Utah Division of Oil, Gas and Mining

Date: October 07, 2014

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Erin Joseph	303 573-4886	Sr. Regulatory Analyst

SIGNATURE	DATE
N/A	10/7/2014

RECEIVED: Oct. 07, 2014

Sundry Number: 56460 API Well Number: 43037157530000

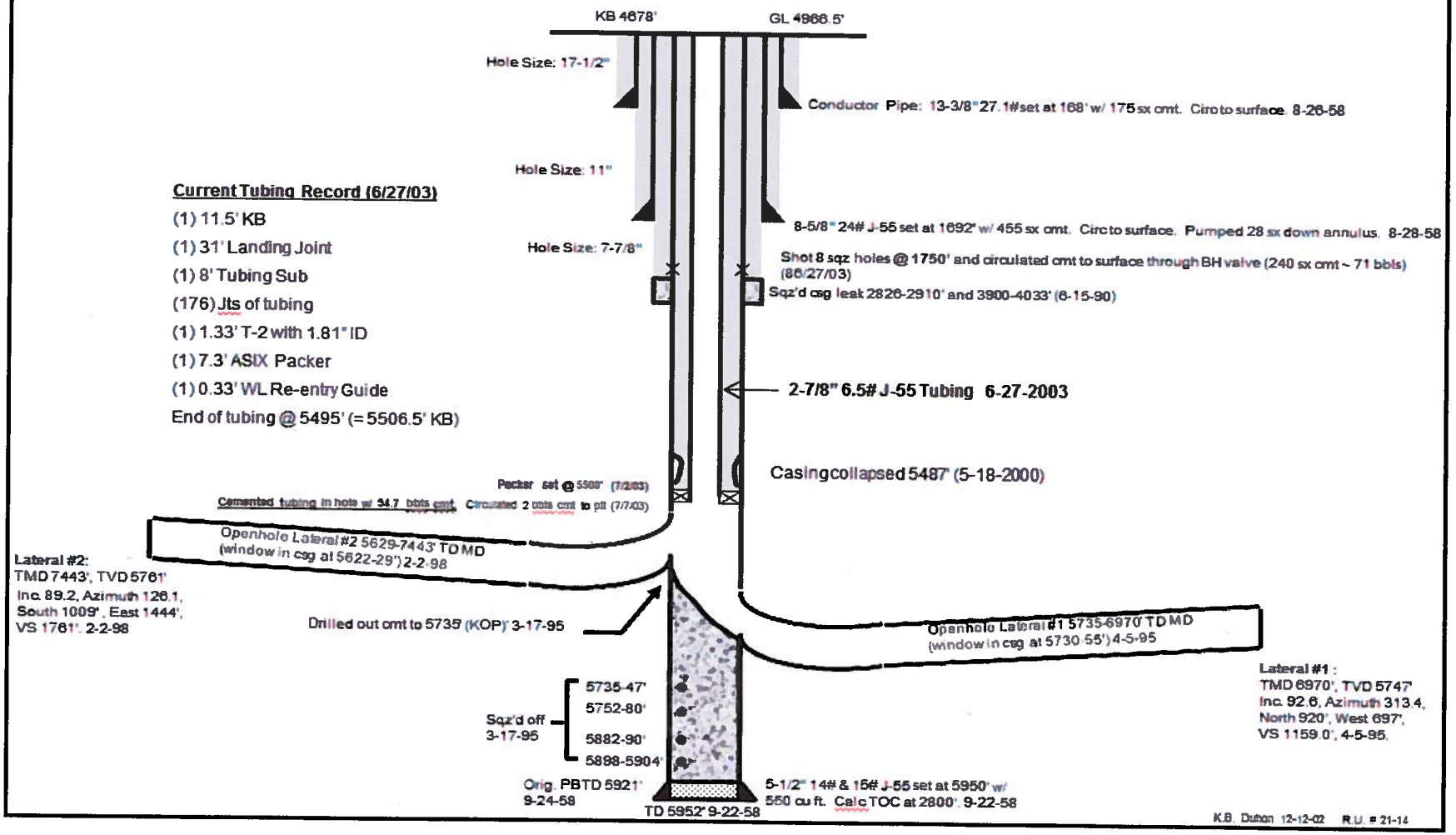
RATHERFORD UNIT # 21W-14
GREATER ANETH FIELD
Surface Loc: 660' FSL & 460' FWL
SEC 21-T41S-R23E
SAN JUAN COUNTY, UTAH
API 43-037-15753
PRISM 0043113

B.H. Location Lateral #1:
942' N & 697' W of Surface
Location in Sec. 20-T41S-R23E

B.H. Location Lateral #2:
1009' S & 1444' W of Surface
Location

INJECTOR

Current as of 9/20/06 – David Gonzales



Current Tubing Record (6/27/03)

(1) 11.5' KB
(1) 31' Landing Joint
(1) 8' Tubing Sub
(176) Jts of tubing
(1) 1.33' T-2 with 1.81" ID
(1) 7.3' ASIX Packer
(1) 0.33' WL Re-entry Guide
End of tubing @ 5495' (= 5506.5' KB)

RESOLUTE
NATURAL RESOURCES

RU Injection Wells Bullhead Acid Treatments

Well Summary Table

	RU Well No.	Well Type	Current BWIPD @ TP	Current Pattern BOPD	Tbg - Csg Sizes	Tubing Run Date	Last Acid	Bbls Wtr Displ After Acid	Comment
1	12W-33	Vertical	909 @ 2910	160	2-3/8 - 4	Dec 2013	Nov 2013	30	
2	29W-32	Sgl Lateral	717 @ 3000	137	2-3/8 - 4	Jul 2013	Jun 2013	30	
3	12W-22	Tri Lateral	1045 @ 2950	129	2-3/8 - 5-1/2	Feb 1997	Feb 1997	40	
4	14W-42	Sgl Lateral	1598 @ 2950	123	2-3/8 - 4	Nov 2011	Mar 2013	30	
5	17W-14	Vertical	2402 @ 2710	104	2-7/8 - 5-1/2	Jun 2012	Oct 2006	45	
6	13W-11	Quad Lateral	892 @ 2850	101	2-7/8 - 7	Jun 2007	< 2000	45	
7	21W-14	Dual Lateral	1006 @ 2950	44	2-7/8 - 5-1/2	Jun 2003	Oct 2006	45	Tubing cmtd in csg Jul 2003.
8	19W-12	Tri Lateral	2295 @ 2610	44	2-3/8 - 5-1/2	Sept 1997	Sept 1997	45	
9	9W-23	Vertical	1461 @ 2800	32	2-3/8 - 5-1/2	Jul 1998	Aug 2007	35	
10	16W-23	Dual Lateral	1003 @ 3000	61	2-7/8 - 5-1/2	Dec 2007	Oct 2006	45	

Procedure

Horsley Witten: Not Applicable

1. Check crown valve & wing valve for integrity to ensure pump truck can rig up to well. (All wells checked by 10-2-14; New wing valves being installed at 12W-22, 14W-42 & 19W-12)
2. MIRU frac tank, manifold & hard line for flowback. RU ABC shower trailer.
3. Backflow the well for ~400 bbls or until significant gas appears, then shut in.
4. RU pumping equipment to wellhead & PT lines. Record TP, CP, Bradenhead P (BHP).
5. Pump 400 gal xylene, 2500 gal inhibited 15% HCl, produced water displacement (see table above). **Pump at maximum rate possible, staying under 3000 psi TP.** Monitor CP and BHP while pumping.
6. Rig down pumping equipment.
7. Notify Pierce Benally (435) 619-7227 that the well is ready to return to injection.
8. Open the well to injection; Record the initial injection rate and tubing pressure.

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-603-355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO

7.UNIT or CA AGREEMENT NAME: RATHERFORD

1. TYPE OF WELL Water Injection Well

8. WELL NAME and NUMBER: RATHERFORD U 21-14

2. NAME OF OPERATOR: RESOLUTE NATURAL RESOURCES

9. API NUMBER: 43037157530000

3. ADDRESS OF OPERATOR: 1700 Lincoln Street, Suite 2800 , Denver, CO, 80203 4535

PHONE NUMBER: 303 534-4600 Ext

9. FIELD and POOL or WILDCAT: GREATER ANETH

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0660 FSL 0460 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 21 Township: 41.0S Range: 24.0E Meridian: S

COUNTY: SAN JUAN

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ NOTICE OF INTENT — Approximate date work will start:
- ✓ SUBSEQUENT REPORT — Date of Work Completion: 11/5/2014
- ☐ SPUD REPORT — Date of Spud:
- ☐ DRILLING REPORT — Report Date:

TYPE OF ACTION

✓ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Resolute Natural Resources submits this sundry as notice that the acid job on the above well was completed on 11/5/2014 according to previously approved procedures.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 24, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Erin Joseph	303 573-4886	Sr. Regulatory Analyst

SIGNATURE	DATE
N/A	11/24/2014

RECEIVED: Nov. 24, 2014