

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other)		

LEASE NO. OCS-Y-0849
6. AREA & BLOCK NR 6-4, Block 624
7. WELL NO. Hammerhead #1
8. UNIT AGREEMENT (None)
9. FIELD Exploratory
10. EXPLORATION <input checked="" type="checkbox"/> DEVELOPMENT <input type="checkbox"/>
11. ADJACENT STATE Alaska
12. API NO. 55-171-00001
13. ELEVATIONS RKB + 39' MSLDF
14. WATER DEPTH 103.8' MSL

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)

Received
OCS District Office

16. 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.)*

DEC 17 1985
Minerals Management Service
Anchorage, Alaska

SEE ATTACHED

CONFIDENTIAL

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Roy D. Roberts *Roy Roberts* TITLE ENVIRONMENTAL SPECIALIST DATE 12-16-85

(This space for Federal or State office use)

APPROVED *[Signature]* TITLE DISTRICT SUPERVISOR DATE AUG 26 1986
CONDITIONS OF APPROVAL, IF ANY:

SUBSEQUENT REPORT OF TEMPORARY ABANDONMENT

1. Set EZSV retainer at 5620' RKB (5477' BML) with 10.7 ppg mud below it.
2. Set EZSV retainer at 5560' RKB (5417' BML) with 10.7 ppg mud below it. Squeezed perforations from 5584-5586' RKB (5441-5443' BML) with 600 sx Class "G" cement.
3. Set EZSV retainer at 5420' RKB (5277' BML) with 9.2 ppg mud below it. Squeezed perforation from 5442-5462' RKB (5299-5319' BML) and from 5470-5490' (5327-5347' BML) with 600 sx Class "G" cement.
4. Perforated from 5290-5292' RKB (5147-5149' BML) and squeezed with 300 sx Class "G" cement.
5. Perforated from 5300-5315' RKB (5157-5172' BML). These perforations sanded off to 5264' RKB (5121' BML) during drill stem test.
6. Set EZSV retainer at 5100' RKB (4957' BML) with 9.2 ppg mud below it. Tested this retainer with 65,000# down weight and 1350 psi injection pressure below it.
7. Injected test fluids and excess mud through retainer into perforation from 5152-5158' RKB (5009-5015' BML) followed by 230 sx Class "G" cement.
8. Unstung from EZSV retainer at 5100' RKB (4957' BML) and spotted 20 sx Class "G" cement on top of it.
9. Set EZSV retainer at 450' RKB (307' BML) with 9.3 ppg mud below it and spotted 150 sx permafrost cement from 450-250' RKB (307-107' BML).
10. Spotted 9.5 ppg freeze depression fluid from 250' RKB (107' BML) to wellhead housing at 166 RKB (23' BML).
11. Disconnected BOPE stack from wellhead.
12. Jumped drivers, installed corrosion cap and inspected immediate vicinity for debris.
13. Demobilized drillship and support vessels from Hammerhead location.

LMA/jed/0975d

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)
AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) <u>Casing Report</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
Hammerhead #1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☒
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. API NO.
55-171-00001

13. ELEVATIONS
RKB + 39' NSL

14. WATER DEPTH
103.8' MSL

RECEIVED
Anchorage, Alaska
(NOTE: Report results of multiple completion or zone change on Form MMS-330.)
DEC 20 1985
REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

16. 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.)*

08/24/85
Cemented 13-3/8" casing at 2882' RKB (2739' BML) with 200 sxs Permafrost and 5230 CL
"G" cement. Leak off test 14 ppg EMW.
70 JTS. 13 3/8", 72 #/ft, V-150 BUTT CSG ✓

Received
OCS District Office

NOV 15 1985

Minerals Management Service
Anchorage, Alaska
Set @ _____ Ft.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 11-15-85

(This space for Federal or State office use)

APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE DEC 19 1985

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

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REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) <u>Casing Report</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
Hammerhead #1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☒
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. API NO.
55-171-00001

13. ELEVATIONS
RKB + 39' NSL

14. WATER DEPTH
103.8' MSL

Received
DPCS District Office
Anchorage, Alaska
NOV 15 1985
DEC 20 1985
Minerals Management Service
REGIONAL SUPERVISOR Anchorage, Alaska

16. 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 pertinent to this work.)

09/03/85

Cemented 9-5/8" liner at 2381' RKB (2238' BML) - Bottom 8031' RKB (7888' BML) with 330 sxs CL "G" (Cement job aborted due to equipment failure).

09/04/85

Squeezed through perforations at 5584-5585' with 600 sxs CL "G" cement.

09/05/85

Squeezed liner lap with 912 sxs CL "G" cement.

135 JTS. 9 5/8", 47 #/ft, N-80 BUTT CSG ✓

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lawrence U. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 11-15-85

(This space for Federal or State office use)
APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE DEC 19 1985

CONDITIONS OF APPROVAL IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA (UNOCAL)

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 190247 ANCHORAGE AK 99519-0247

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)
AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA REQUEST FOR APPROVAL TO:

ACIDIZE	<input type="checkbox"/>	SUBSEQUENT REPORT OF:	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>		<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>		<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>		<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>		<input type="checkbox"/>
(Other) <u>Casing Report</u>			<input checked="" type="checkbox"/>

LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
Hammerhead #1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☒
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. APL NO.
55-171-00001

13. ELEVATIONS
RKB + 39' MSL DF

14. WATER DEPTH
103.8' MSL

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)
Anchorage, Alaska

DEC 20 1985

REGIONAL SUPERVISOR

FIELD OPERATION

16. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent data 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.)*

10/15/84

Cemented 30" casing at 353' RKB (210' BML) with 930 sxs Permafrost cement.

30", 310 #/ft, X-4 CSG ✓

Received
OCS District Office

NOV 15 1985

Minerals Management Service
Anchorage, Alaska

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 11-15-85

(This space for Federal or State office use)
APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE DEC 19 1985
CONDITIONS OF APPROVAL, IF ANY: _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

LEASE NO.	OCS-Y-0849
6. AREA & BLOCK	NR 6-4, Block 624
7. WELL NO.	Hammerhead #1
8. UNIT AGREEMENT	(None)
9. FIELD	Exploratory
10.	EXPLORATION <input checked="" type="checkbox"/> DEVELOPMENT <input type="checkbox"/>
11. ADJACENT STATE	Alaska
12. APL NO.	55-171-00001
13. ELEVATIONS	RKB + 39' MSL DF
14. WATER DEPTH	103.8' MSL

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) <u>Casing Report</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RECEIVED
(NOTE: Report ~~Anchorage, Alaska~~ completion or zone change on Form MMS-330.)

DEC 20 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

16. 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.)*

08/12/85

Cemented 20" casing at 1026' RKB (883' BML) with 1,914 sxs permafrost and 590 sxs CL "G" cement. Leak off test 12.6 ppg EMW.

20 JTS, 20", 133 #/ft, X-56 VETCO-LX ✓

Received
OCS District Office

NOV 15 1985

Minerals Management Service
Anchorage, Alaska

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lawrence O. Culligan TITLE ENVIRONMENTAL SPECIALIST DATE 11-15-85

(This space for Federal or State office use)

APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE DEC 19 1985

CONDITIONS OF APPROVAL IF ANY:

AREA FILE 6B.2
Y 849 #1

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

SUNDRY NOTICES AND REPORTS ON WELLS

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1. oil well ☐ gas well ☐ other ☐

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)
AT SURFACE 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

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ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
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PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) Well Location		

LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
Hammerhead #1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☐
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. API NO.
55-171-00001

13. ELEVATIONS
RKB + 39' NSL

14. WATER DEPTH
103.8' MSL

Received
OCS District Office

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)

NOV 15 1985

Minerals Management Service
Anchorage, Alaska

RECEIVED
Anchorage, Alaska

NOV 22 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

Attached - Well Location Survey Plat

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 11-15-85

Accepted: _____ (This space for Federal or State office use)
TITLE DISTRICT SUPERVISOR DATE NOV 20 1985

CONDITIONS OF APPROVAL, IF ANY:

BLOCK 624

N=7,809,600.
E= 533,600.

N=7,809,600.
E= 538,400.

Received
OCS District Office

NOV 15 1985

Minerals Management Service
Anchorage, Alaska

1"=2000 METERS

NOTES

1. LOCATION OF WELL SITE WAS ACCOMPLISHED BY UTILIZING A FULLY AUTOMATED DEL-NORTE POSITIONING SYSTEM WITH DOME PETROLEUM'S REAL-TIME NAVIGATION SOFTWARE.
2. ALL DIMENSIONS AND COORDINATES ARE IN METERS UNLESS NOTED OTHERWISE.

WELL LOCATION

N=7,804,800.
E= 533,600.

N=7,804,800.
E= 538,400.

OPERATOR..... UNION OIL OF CA
RIG..... EXPLORER II
AREA..... FLAXMAN ISLAND
BLOCK..... 624
WELL..... HAMMERHEAD
DATE..... OCT. 13, 1984
HEADING..... 082 TRUE

U.T.M. COORDINATES, ZONE 06

N= 7,806,655.
E= 536,588.

GEODETIC POSTION, MAD-2,

LAT. N 70 21 52.65
LONG. W 148 01 27.92

WELL LOCATION DESCRIPTION

1812 METERS WEST OF THE EAST LINE
AND 1855 METERS NORTH OF THE SOUTH LINE
BLOCK 624, OCS PROTRACTION DIAGRAM
FLAXMAN ISLAND, NR 6-4, ALASKA.



CERTIFIED PROFESSIONAL LAND SURVEYOR

I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A LOCATION SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL DETAILS ARE CORRECT.

OCT. 18, 1984
DATE

SURVEYOR

Stanley E. King

LOCATION SURVEY FOR

HAMMERHEAD BORING

LOCATED IN THE FLAXMAN IS. AREA
SURVEYED FOR

DOMESTIC PETROLEUM

SURVEYED BY

ITECH

INTERNATIONAL TECHNOLOGY LIMITED
DENVER, COLORADO ANCHORAGE, ALASKA HOUSTON, TEXAS

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

SUNDRY NOTICES AND REPORTS ON WELLS

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3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)
AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
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ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) Testing		

5. LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
#1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☒
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. API NO.
55-171-00001

13. ELEVATIONS
RKB + 39' MSL

14. WATER DEPTH
103.8' MSL

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)

16. 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.)*

RECEIVED
OCS DISTRICT OFFICE

SEP 6 1985

MINERALS MANAGEMENT SERVICE
ANCHORAGE, ALASKA

SEE ATTACHED ADDENDUM

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

17. I hereby certify that the foregoing is true and correct
SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 09-09-85

(This space for Federal or State office use)
APPROVED Nahel Fraasri TITLE DISTRICT SUPERVISOR DATE SEP 6 1985

CONDITIONS OF APPROVAL, IF ANY:

A.) 9-5/8" casing was changed to a liner per verbal approval from Barry Bordeaux MMS on 09/02/85. Liner depth is 2381-8031'.

B.) PROPOSED PROCEDURE FOR TESTING

- 1.) Two intervals are to be perforated: 5470-5490' & 5442-5462'. a possible third zone of 5306-5326'.
- 2.) Change hole fluid over to an over balanced completion fluid.
- 3.) Flow test well: Initial flow 15mm, shut-in 60min, flow well 6-8 hrs., final shut-in 12-16 hrs.
- 4.) Set a retainer at + 5392'. (A retainer already exists at 5600') (If the zone from 5306-5326' is opened, the retainer will be set a + 5256').
- 5.) Reinject produced fluid back into zone it was produced from.

PROPOSED PROCEDURE FOR ABANDONMENT

Detailed below is the proposed abandonment procedure for the Hammerhead Prospect. It should be noted that the subject procedure meets all requirements of a temporary abandonment as well as a permanent abandonment as per Alaska OCS Orders.

RECEIVED
OCS DISTRICT OFFICE

Well Information: 30" casing at 353' RKB (210' BML).
20" casing at 1026' RKB (883' BML).
13-3/8" casing at 2882' RKB (2739' BML).
9-5/8" casing from 8031-2381' RKB
(7888-2238' BML).

SEP 6 1985

MINERALS MANAGEMENT SERVICE
ANCHORAGE, ALASKA

Final mud wt. 10.6 ppg. *new*

- 1.) Trip in hole with 5" DP and stab into retainer at + 5392' (or 5256'). Squeeze cement thru the retainer so as to extend to 5600'.
- 2.) Unsting from the retainer and lay 50' of cement on top of same. Plug will be tested to 1000 psi. *new*
- 3.) Pull out of hole to 450'. Spot a permafrost cement surface plug inside 13-3/8" casing from 450' to 250' (307' to 107' BML). Pull out of hole. Note: Permafrost zone (s) extend no deeper than 410' RKB (267' BML).
- 4.) Disconnect BOP stack from wellhead. Pull out of hole with riser, lower marine riser package and BOP stack. Shear guidelines and retrieve same.
- 5.) Jump divers. Install corrosion cap on 18-3/4" wellhead. Inspect glory hole and surrounding mudline for debris.
- 7.) De-mobilize drillship and support vessels from Hammerhead location.

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Exploratory

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
PERFORATE ☐
PERMANENT ABANDONMENT ☐
TEMPORARY ABANDONMENT ☒
ARTIFICIAL LIFT ☐

SUBSEQUENT REPORT OF:

☐
☐
☐
☐
☐
☐
☐
☐

(Other) _____

16. 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.)*

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)

RECEIVED
Anchorage, Alaska

SEP 25 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

RECEIVED
CCS DISTRICT OFFICE

SEP 23 1985

MINERALS MANAGEMENT SERVICE
ANCHORAGE, ALASKA

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

17. I hereby certify that the foregoing is true and correct L.M.H.

SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 09-23-85

(This space for Federal or State office use)

APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE SEP 23 1985

CONDITIONS OF APPROVAL IF ANY:

6B

PROPOSED PROCEDURE FOR ABANDONMENT

Detailed below is the proposed abandonment procedure for the Hammerhead Prospect. It should be noted that the subject procedure meets all requirements of a temporary abandonment as well as a permanent abandonment as per Alaskan OCS Orders.

Well Information: 30" casing at 353' RKB (210' BML).
20" casing at 1026' RKB (883' BML).
13-3/8" casing at 2882' RKB (2739' BML).
9-5/8" casing from 2381-8031' RKB
(2238-7888' BML).

- 1.) Perforate 5152-5158' RKB (5009-5015' BML).
- 2.) Set retainer @ 5100 RKB (4957 BML).
- 3.) Displace all test fluids and excess mud through retainer.
- 4.) Mix and pump 250 sxs cmt leaving 50' of cmt on top of retainer.
- 5.) Pull up hole and spot permafrost cmt from 450' to 250' RKB (307-107' BML). Permafrost zone is no deeper than 410' RKB (267' BML).
- 6.) Reverse circulate @ 250 RKB (107' BML) and spot freeze depression fluid on top of plug and POOH.
- 7.) Disconnect BOP stack from wellhead. Pull out of hole with riser, lower marine riser package and BOP Stack. Shear guidelines and retrieve same.
- 8.) Jump divers. Install corrosion cap on 18-3/4" wellhead. Inspect glory hole and surrounding mudline for debris.
- 9.) De-mobilize drillship and support vessels from Hammerhead location.

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OCS DISTRICT OFFICE

SEP 23 1985

MINERALS MANAGEMENT SERVICE
ANCHORAGE, ALASKA

RECEIVED
Anchorage, Alaska

SEP 25 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other ☐

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)
AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) <u>Testing</u>		

LEASE NO.
OCS-Y-0849

6. AREA & BLOCK
NR 6-4, Block 624

7. WELL NO.
#1

8. UNIT AGREEMENT
(None)

9. FIELD
Exploratory

10. EXPLORATION ☒
DEVELOPMENT ☐

11. ADJACENT STATE
Alaska

12. API NO.
55-171-00001

13. ELEVATIONS
RKB + 39' MSL

14. WATER DEPTH
103.8' MSL

(NOTE: Report results of multiple completion or zone change on Form MMS-330.)

16. 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 ADDENDUM

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

17. I hereby certify that the foregoing is true and correct Lawrence O. Cutting

SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 09-03-85

(This space for Federal or State office use)

APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE SEP 5 1985

CONDITIONS OF APPROVAL, IF ANY:

Received
DISTRICT
OIL AND GAS OFFICE

AREA FILE 6B.2
Y0849 #1

*See instructions on reverse

SEP 3 1985

Minerals Management Service
Anchorage, Alaska

16. PROPOSED PROCEDURE

It is proposed to make the following changes in the Hammerhead drilling program:

A) 9 5/8" casing - change to liner.

- 1.) Run and hang 9 5/8" 47# N-80 buttress liner f/+8034' - +2382' (+ 500' lap.)
- 2.) Cement liner with + 2000 sxs class "G" cmt w/additives (theoretical TOC + 300' above lap.)
- 3.) Clean out cmt and tst lap to 1800 psi (22.6 PPG EMW at 13 3/8" shoe.)
- 4.) Test 9 5/8" liner to 1800 psi (0.22 psi/ft. @ 8034').

B) Testing Program:

- 1.) Test two intervals separately through casing.
- 2.) Perforate through tubing as directed by Geological Staff.
- 3.) Flow well as directed.
- 4.) Set retainer.
- 5.) Reinject produced fluid into zone from which it was produced.
- 6.) Abandon interval.

Received
DISTRICT
OIL AND GAS OFFICE

SEP 3 1985

Minerals Management Service
Anchorage, Alaska

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☒ gas well ☐ other

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) Barite Reserves		

16. 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.)*

We propose to reduce barite reserve from 4000 sxs to 2000 sxs after setting and cementing 13 3/8" casing.

RECEIVED
OCS DISTRICT OFFICE

AUG 22 1985
MINERALS MANAGEMENT SERVICE
ANCHORAGE, ALASKA

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lawrence O. Cutting *LOCutting by Galsorkan* TITLE ENVIRONMENTAL SPECIALIST DATE 08-21-85

APPROVED [Signature] (This space for Federal or State office use) TITLE OCS DIST SUPERVISOR DATE 8/22/85

CONDITIONS OF APPROVAL, IF ANY:

LEASE NO. OCS-Y-0849
6. AREA & BLOCK NR 6-4, Block 624
7. WELL NO. #1
8. UNIT AGREEMENT (None)
9. FIELD Exploratory
10. EXPLORATION <input checked="" type="checkbox"/> DEVELOPMENT <input type="checkbox"/>
11. ADJACENT STATE Alaska
12. API NO. 55-171-00001
13. ELEVATIONS RKB + 39' MSL DF
14. WATER DEPTH 103.8' MSL

RECEIVED

(NOTE: Report results of anchorage Alaska operation or zone change on Form MMS-330.)

AUG 22 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

AREA FILE

6B-2

Y0849 #1

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

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 Form MMS-331-C for such proposals.)

1. oil well ☐ gas well ☐ other

2. NAME OF OPERATOR
UNION OIL COMPANY OF CALIFORNIA

3. ADDRESS OF OPERATOR (Where form is completed)
PO BOX 6247 ANCHORAGE AK 99502

4. LOCATION OF WELL (Report location in accordance with instructions* and Item 16.)

AT SURFACE: 5945' WEL & 6086' NSL, Block 624
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

15. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
PERFORATE	<input type="checkbox"/>	<input type="checkbox"/>
PERMANENT ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY ABANDONMENT	<input type="checkbox"/>	<input type="checkbox"/>
ARTIFICIAL LIFT	<input type="checkbox"/>	<input type="checkbox"/>
(Other) CHANGE PROCEDURE		

16. 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.)*
Please substitute the following steps of the Drilling Program in place of those previously submitted in the procedures on the Application For Permit to Drill of May, 1985.

These new procedures replace those steps as indicated by numerical reference.

- 7.) Drill 17 1/2" hole to 907' BML (1050' RKB).
- 8.) Eliminate this step.
- 9.) Underream 17 1/2" hole to 26" hole while taking returns to surface. AUG 9 1985
- 18.) Drill 17 1/2" hole to 2900' BML (3043' RKB).

All remaining steps of the procedure will remain the same. The kill weight mud densities will meet or exceed those previously submitted in the APD.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

17. I hereby certify that the foregoing is true and correct
SIGNED Lawrence O. Cutting TITLE ENVIRONMENTAL SPECIALIST DATE 07-06-85

(This space for Federal or State office use)

APPROVED [Signature] TITLE DISTRICT SUPERVISOR DATE AUG 9 1985
CONDITIONS OF APPROVAL, IF ANY:

LEASE NO. S-Y-0849
6. AREA & BLOCK NR 6-4, Block 624
7. WELL NO. #1
8. UNIT AGREEMENT (None)
9. FIELD Exploratory
10. EXPLORATION <input checked="" type="checkbox"/> DEVELOPMENT <input type="checkbox"/>
11. ADJACENT STATE Alaska
12. API NO. <u>55-171-00001</u>
13. ELEVATIONS RKB + 39' MSL DF
14. WATER DEPTH 103.8' MSL

RECEIVED

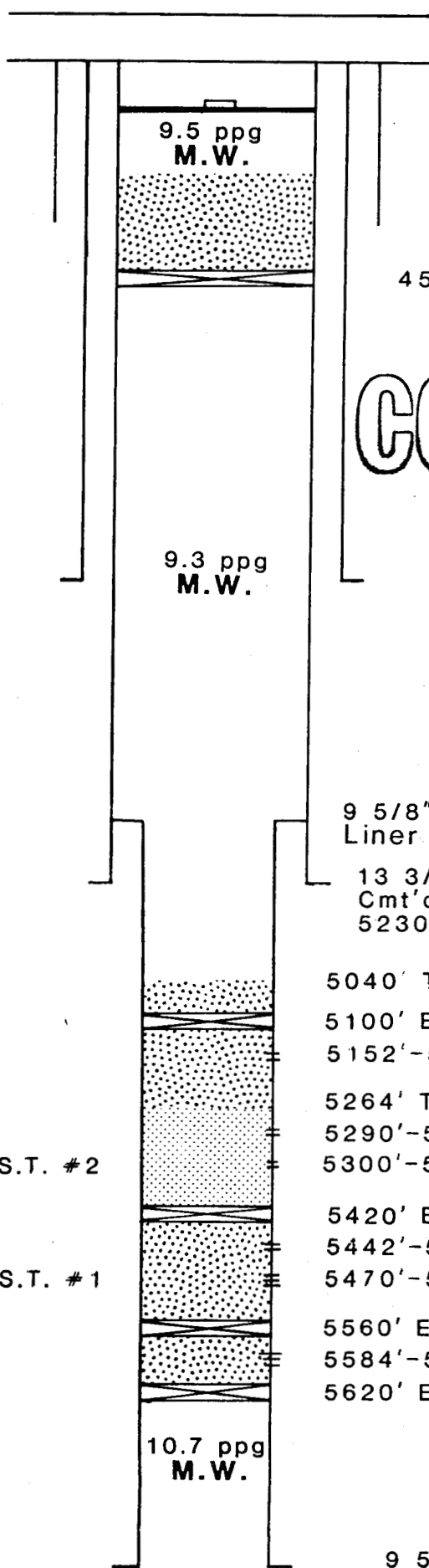
(NOTE: Report Alaska completion or zone change on Form MMS-330.)

AUG 14 1985

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERVICE

Received
DISTRICT
OIL AND GAS OFFICE

Minerals Management Service
Anchorage, Alaska



R.K.B. at 0'

Mud Line at 142.5'

Corrosion Cap Installed on VETCO 18 3/4" Housing 23' B.M.L.

Top of Cement at 250'
Cmt'd W/150sx Permafrost cement.
30", 31-#, X-42 VETCO-ST Conductor at 353'
Cmt'd W/930sx Permafrost cmt.

450' EZSV

CONFIDENTIAL

20", 133#, X-56 VETCO-LX Casing at 1026'
Cmt'd W/1914sx Pemafrst cmt. followed by
590sx class "G" cmt.

9 5/8" LG-20 Liner Top at 2381'
Liner Lap sqz'd W/912sxs Class "G" cmt.

13 3/8", 72#, V-150 Buttress Casing at 2882'
Cmt'd W/200sx Permafrost cmt. Followed by
5230sxs Class "G" cement.

5040' T.O.C.

5100' EZSV

5152'-5158' Injection Perfs. Sqz'd W/230sxs cmt.

5264' Top of Sand

5290'-5292' Isol. Sqz. 300sx Class "G" cmt.

5300'-5315' Prod. Test Zone, Sanded Off

5420' EZSV

5442'-5462'

5470'-5490' Prod. Test Zone Sqz'd W/600sx
Class "G" cmt.

5560' EZSV

5584'-5586' Isol. sqz. 600sxs Class "G" cmt.

5620' EZSV

SAND

CE NT

9 5/8", 47#, N-80 Buttress Liner at 8031'
Cmt'd W/330sxs Class "G" cmt.

TD 8034'

REV.	DATE

HAMMERHEAD #1 WELL SCHEMATIC

UNION OIL COMPANY OF CALIFORNIA
ANCHORAGE, ALASKA

DRAWN BAW CKD.
APP'D.
SCALE NONE
DATE 11/13/85

SHEETS SHEET