

RECEIVED: 8/25/20	REVIEWER: DM	TYPE: PLC	APP NO: pDM2024032317
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: COG Operating, LLC **OGRID Number:** 229137
Well Name: Harrier Federal Com 101H and eight other wells (see attached) **API:** 30-025-45827
Pool: Jennings; Upper Bone Spring Shale **Pool Code:** 97838

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
 A. Location - Spacing Unit - Simultaneous Dedication
 NSL NSP (PROJECT AREA) NSP (PRORATION UNIT) SD
- B. Check one only for [I] or [II]
 [I] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM
 [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
 A. Offset operators or lease holders
 B. Royalty, overriding royalty owners, revenue owners
 C. Application requires published notice
 D. Notification and/or concurrent approval by SLO
 E. Notification and/or concurrent approval by BLM
 F. Surface owner
 G. For all of the above, proof of notification or publication is attached, and/or,
 H. No notice required

FOR OCD ONLY	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	Application Content Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Jeanette Barron

Print or Type Name

Jeanette Barron

Signature

8/25/20

Date

575-746-6974

Phone Number

jbarron@concho.com

e-mail Address



August 25, 2020

Attn: Dean McClure
NM Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Application for Administrative Approval of Pool Lease Commingle

Dear Mr. McClure,

COG Operating LLC respectfully requests approval for pool lease commingling for the following wells:

Harrier Federal Com 101H
API# 30-025-45827
Jennings; Bone Spring Shale
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 102H
API# 30-025-45828
Jennings; Bone Spring Shale
Ut. M, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 201H
API# 30-025-45830
Jennings; Bone Spring Shale
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 202H
API# 30-025-45831
Jennings; Bone Spring Shale
Ut. D, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 301H
API# 30-025-45832
Jennings; Bone Spring Shale
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 302H
API# 30-025-45833
WC-025 G-08 S253235G; LWR Bone Spring
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 303H
API# 30-025-45834
Jennings; Bone Spring Shale
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Harrier Federal Com 304H
API# 30-025-45835
WC-025 G-08 S253235G; LWR Bone Spring
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

CORPORATE ADDRESS

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701
P 432.683 7443 | F 432 683 7441

ARTESIA WEST OFFICE

2208 Main Street | Artesia, New Mexico 88210
P 575 748.6940 | F 575.746 2096



Harrier Federal Com 305H
API# 30-025-45836
Jennings; Bone Spring Shale
Ut. N, Sec. 2-T26S-R32E
Lea County, NM

Oil Production:

The produced fluids from all wells flow into the production headers #1, #2, and #3 of the bulk and test facility. At any point in time, 1 well from each header will be in test for a 2-day period before cycling to the next well, resulting in a maximum time one well to be between well tests is 6 days. In all cases this exceeds the 3 well tests per month requirement. The oil will be commingled at the Central Tank Battery located in Ut. N, Sec. 2-T26S-R32E. In the event the CTB is over capacity or in the case of battery or pipeline repairs the oil production from these wells may be transported by truck to either the Red Hills Offload Station, located in Unit O, Section 4-T26S-R32E, or the Jal Offload Station, located in Unit D, Section 4-T26S-R37E, Lea County. In this case, the oil will remain segregated and will be measured by lact meter when offloading at said stations.

Gas Production:

the produced fluids from all wells flow into the production headers #1, #2, and #3 of the bulk and test facility. At any point in time, 1 well from each header will be in test for a 2 day period before cycling to the next well, resulting in a maximum time one well to be between well tests is 6 days. In all cases this exceeds the 3 well tests per month requirement. The gas will be commingled and entering a gas flow line to the gas custody transfer meter at the Central Tank Battery located in Ut. N, Sec. 2-T26S-R32E. The Lucid gas sales meter # 12966.

All wells are not flowing back and have reached their peak production. Please see attached documentation.

No owner notification is necessary. A letter from a certified Landman stating all owners and interest are identical is enclosed.

Please see the enclosed Administrative Application Checklist, C-107B Application for Pool Lease Commingling, plats for referenced wells, site facility diagram, maps with lease boundaries showing wells and facility locations, production history and communization agreement application.

Thank you for your attention to this matter.

Sincerely,

Jeanette Barron
Regulatory Technician II

CORPORATE ADDRESS

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701
P 432.683.7443 F 432.683.7441

ARTESIA WEST OFFICE

2208 Main Street | Artesia, New Mexico 88210
P 575.748.6940 F 575.746.2096

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr, Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-B
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 S. St Francis Drive
Santa Fe, New Mexico 87505

Submit the original application to the Santa Fe office with one copy to the appropriate District Office.

APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)

OPERATOR NAME: COG Operating LLC
OPERATOR ADDRESS: 2208 W Main Street, Artesia, New Mexico 88210
APPLICATION TYPE:

Pool Commingling Lease Commingling Pool and Lease Commingling Off-Lease Storage and Measurement (Only if not Surface Commingled)

LEASE TYPE: Fee State Federal

Is this an Amendment to existing Order? Yes No If "Yes", please include the appropriate Order No. _____
Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling
 Yes No

(A) POOL COMMINGLING
Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production		Calculated Value of Commingled Production	Volumes
97838 Jennings; Upper Bone Spring Shale	45.21/1209	44.6/1230			
97903 WC-025 G-08 S253235G;LWR Bone Spring	42.3/1301				

- (2) Are any wells producing at top allowables? Yes No
- (3) Has all interest owners been notified by certified mail of the proposed commingling? Yes No.
- (4) Measurement type: Metering Other (Specify)
- (5) Will commingling decrease the value of production? Yes No If "yes", describe why commingling should be approved

(B) LEASE COMMINGLING
Please attach sheets with the following information

- (1) Pool Name and Code.
- (2) Is all production from same source of supply? Yes No
- (3) Has all interest owners been notified by certified mail of the proposed commingling? Yes No
- (4) Measurement type: Metering Other (Specify)

(C) POOL and LEASE COMMINGLING
Please attach sheets with the following information

- (1) Complete Sections A and E.

(D) OFF-LEASE STORAGE and MEASUREMENT
Please attached sheets with the following information

- (1) Is all production from same source of supply? Yes No
- (2) Include proof of notice to all interest owners.

(E) ADDITIONAL INFORMATION (for all application types)
Please attach sheets with the following information

- (1) A schematic diagram of facility, including legal location.
- (2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved.
- (3) Lease Names, Lease and Well Numbers, and API Numbers.

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

SIGNATURE: Jeanette Barron TITLE: Regulatory Technician II
TYPE OR PRINT NAME Jeanette Barron TELEPHONE NO.: 575.748.6974

DATE: 08/25/20

E-MAIL ADDRESS: jbarron@concho.com

DISTRICT I
 1625 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-8181 Fax: (575) 393-0720

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-8720

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87506
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45827		Pool Code 97838	Pool Name Jennings; Upper Bone Spring Shale
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 101H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3246.1'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	26-S	32-E		375	SOUTH	1490	WEST	LEA

Bottom Hole Location If Different From Surface

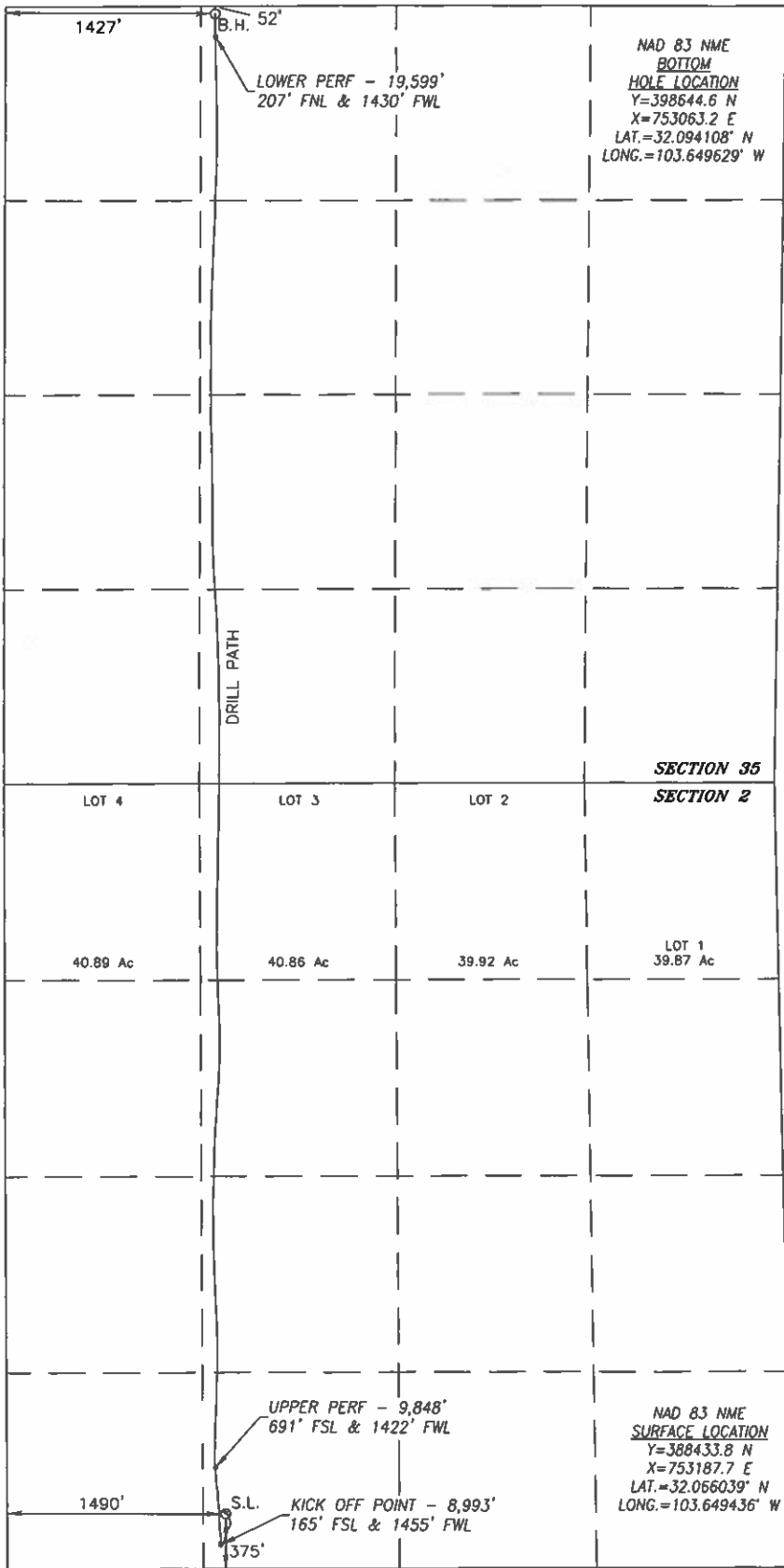
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	25-S	32-E		52	NORTH	1427	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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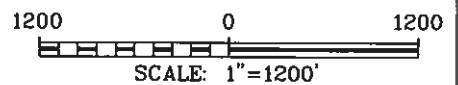
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 101H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3246.1'



SURFACE INFO AND BOREPATH SHOWN HERSON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #101H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 1, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
 Signature Date

Jeanette Barron
 Printed Name

jbarron@concho.com
 E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/DEC. 13, 2019
 Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



Chad Harcrow 4/1/20
 Certificate No. CHAD HARCROW 17777

DISTRICT I
1825 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 398-8181 Fax: (575) 398-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1285 Fax: (575) 748-9720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45828		Pool Code 97838	Pool Name Jennings; Upper Bone Spring Shale
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 102H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3247.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	26-S	32-E		330	SOUTH	750	WEST	LEA

Bottom Hole Location If Different From Surface

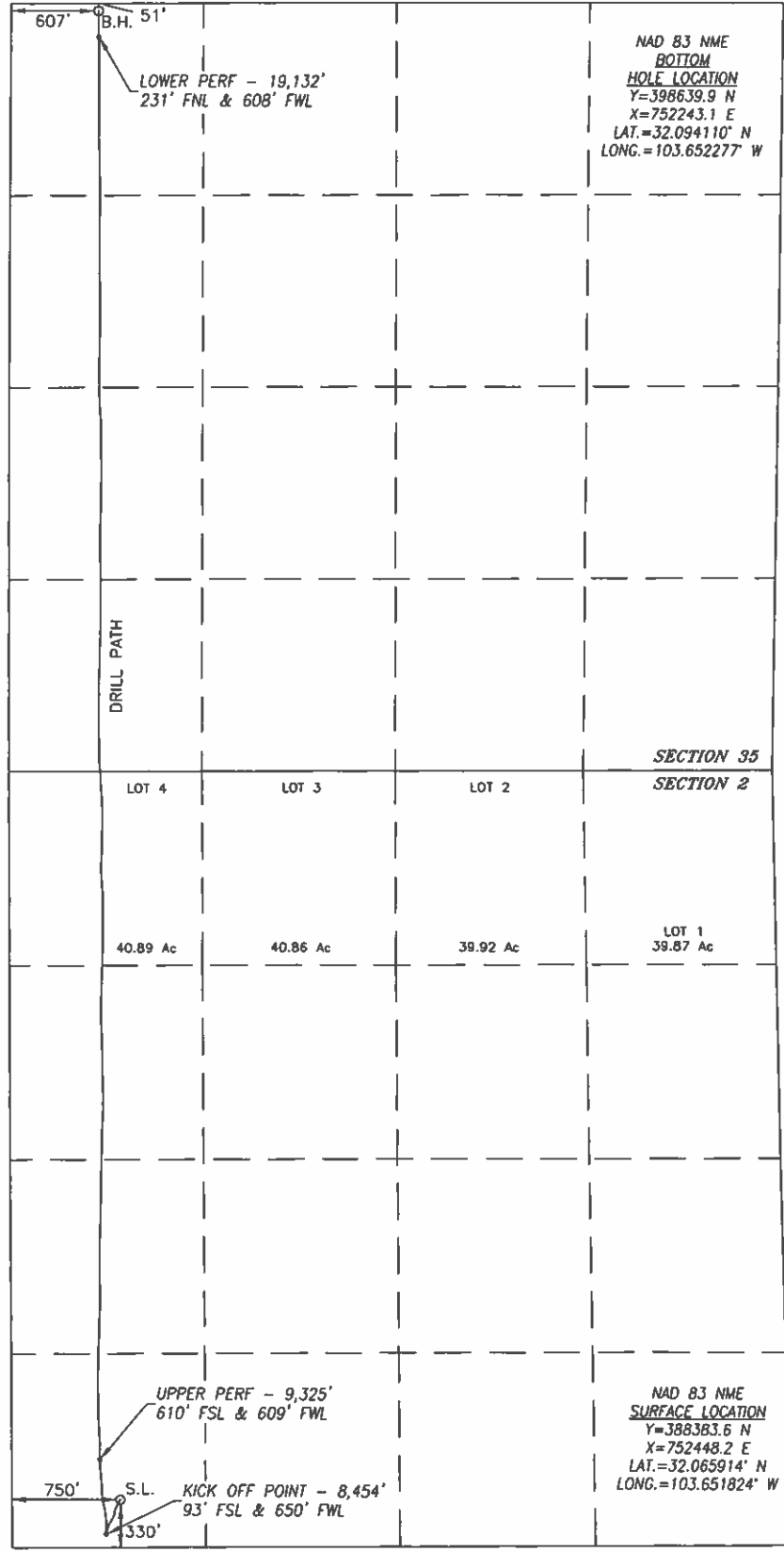
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	25-S	32-E		51	NORTH	607	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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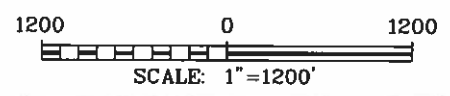
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 102H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3247.3'



SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #102H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 14, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
Signature Date

Jeanette Barron
Printed Name

jbarron@concho.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/NOV. 15, 2019
Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor

Chad Harcrow 4/15/20
Certificate No. CHAD HARCROW 17777

DISTRICT I
 1825 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-8181 Fax: (575) 393-9720

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
 Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
 As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45830		Pool Code 97838	Pool Name Jennings; Upper Bone Spring Shale
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 201H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3249.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	26-S	32-E		375	SOUTH	1400	WEST	LEA

Bottom Hole Location If Different From Surface

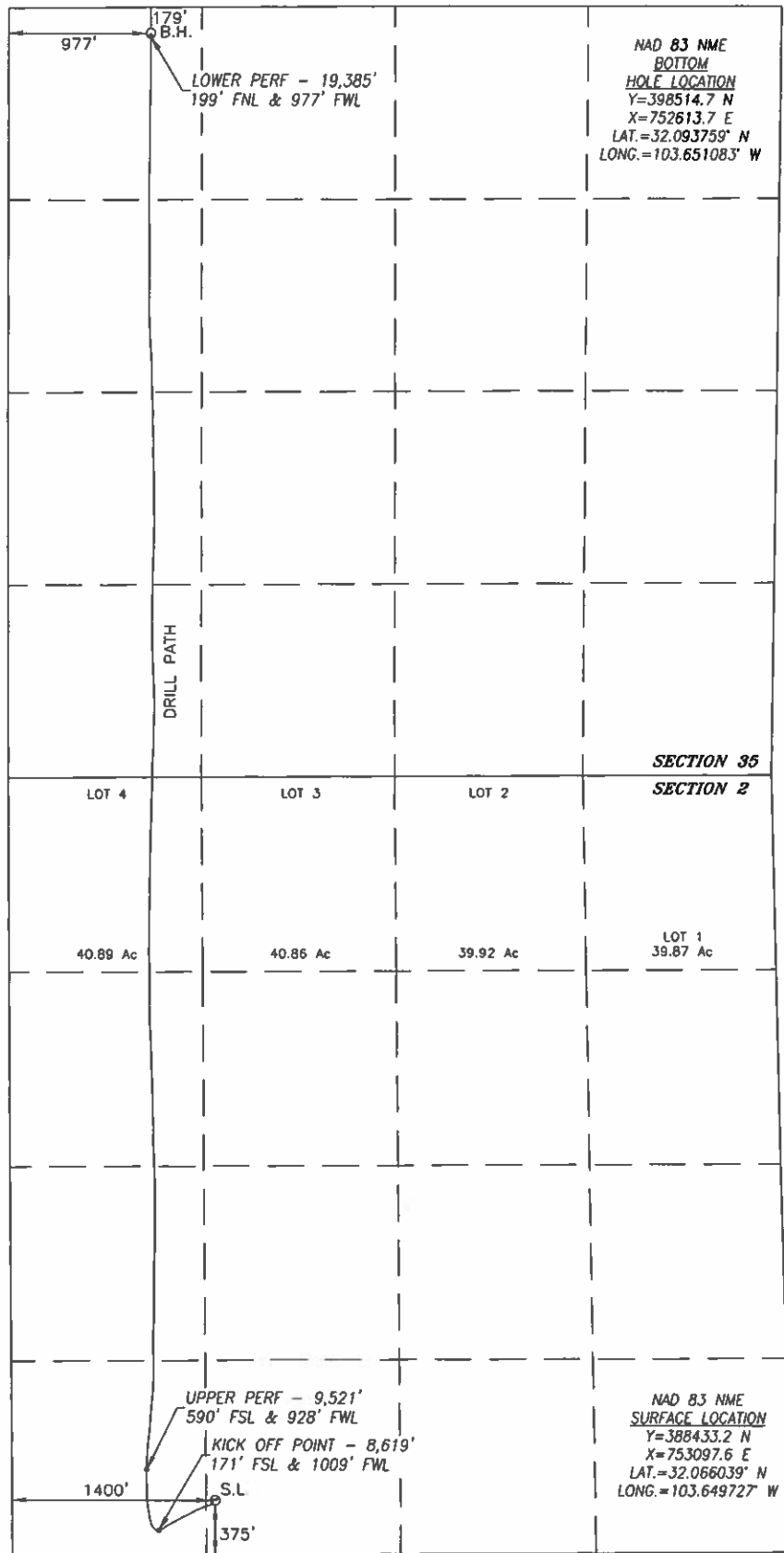
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	25-S	32-E		179	NORTH	977	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

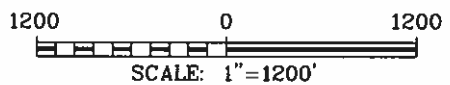
SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 201H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3249.3'



NAD 83 NME
BOTTOM
HOLE LOCATION
Y=398514.7 N
X=752613.7 E
LAT.=32.093759° N
LONG.=103.651083° W

SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #201H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 1, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
Signature Date

Jeanette Barron
Printed Name

jbarron@concho.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/JAN. 21, 2020
Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



Chad Harcrow 4/1/20
Certificate No. CHAD HARCROW 17777

DISTRICT I
 1825 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 399-6191 Fax: (575) 392-9780

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9780

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
 As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45831		Pool Code 97838	Pool Name JENNINGS; UPPER BONE SPRING SHALE
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 202H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3369.5'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	25-S	32-E		435	NORTH	262	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	26-S	32-E		50	SOUTH	233	WEST	LEA

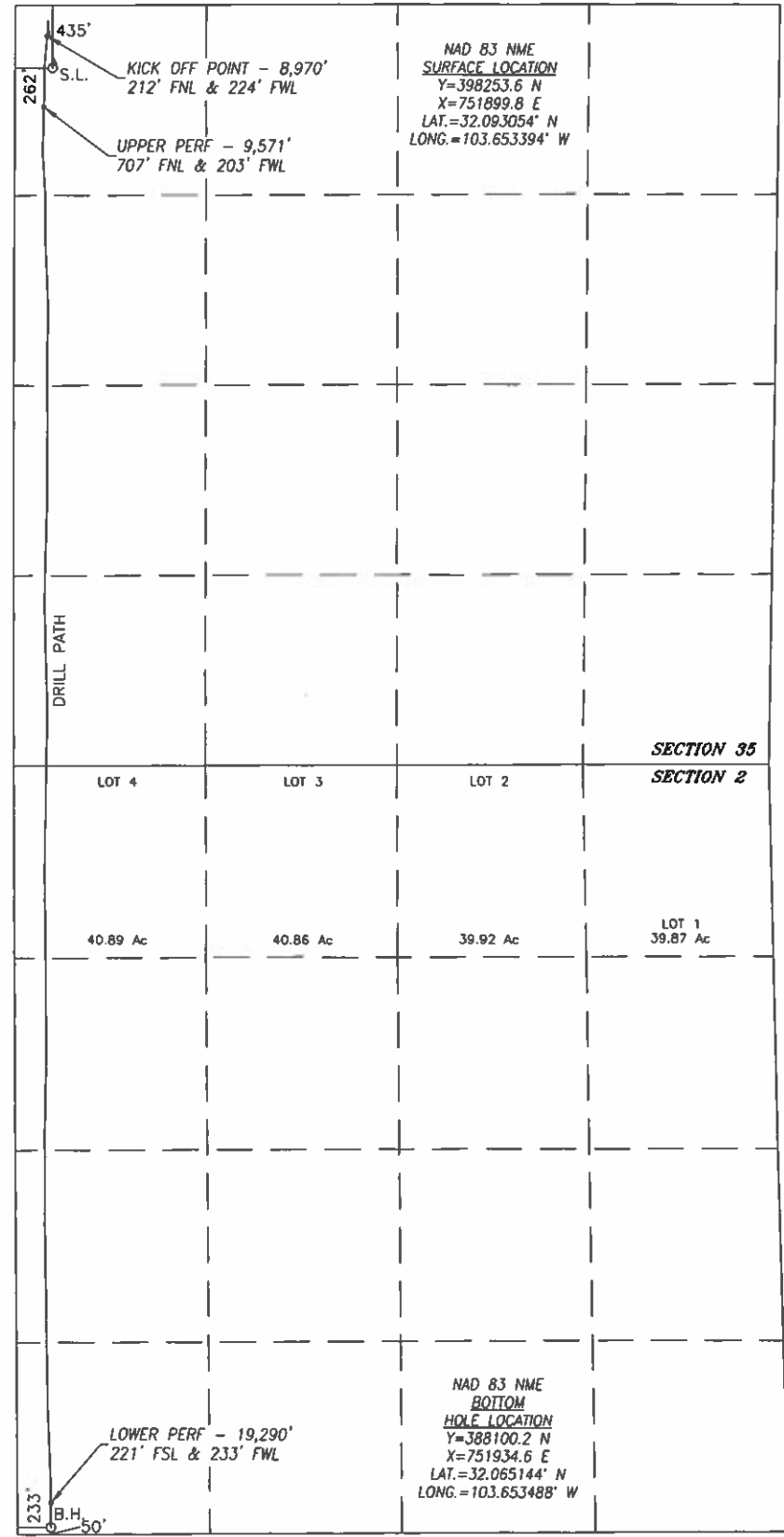
Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

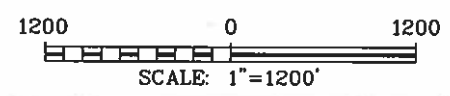
SEE PAGE 2

W.O. #20-766 PAGE 1 OF 2
 DRAWN BY: WN

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 202H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3369.5'



SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #202H SUPPLIED TO HARCROW SURVEYING, LLC ON MAY 21, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
 Signature Date
 Jeanette Barron
 Printed Name
 jbarron@concho.com
 E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/OCT. 24, 2019
 Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor

Chad Harcrow 5/27/20
 Certificate No. CHAD HARCROW 17777

DISTRICT I
 1625 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-8181 Fax: (575) 393-0720

DISTRICT II
 611 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
 As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45832	Pool Code 97838	Pool Name Jennings; Upper Bone Spring Shale
Property Code 325390	Property Name HARRIER FEDERAL COM	
OGRID No. 229137	Operator Name COG OPERATING, LLC	Well Number 301H Elevation 3252.6'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	26-S	32-E		375	SOUTH	1910	WEST	LEA

Bottom Hole Location If Different From Surface

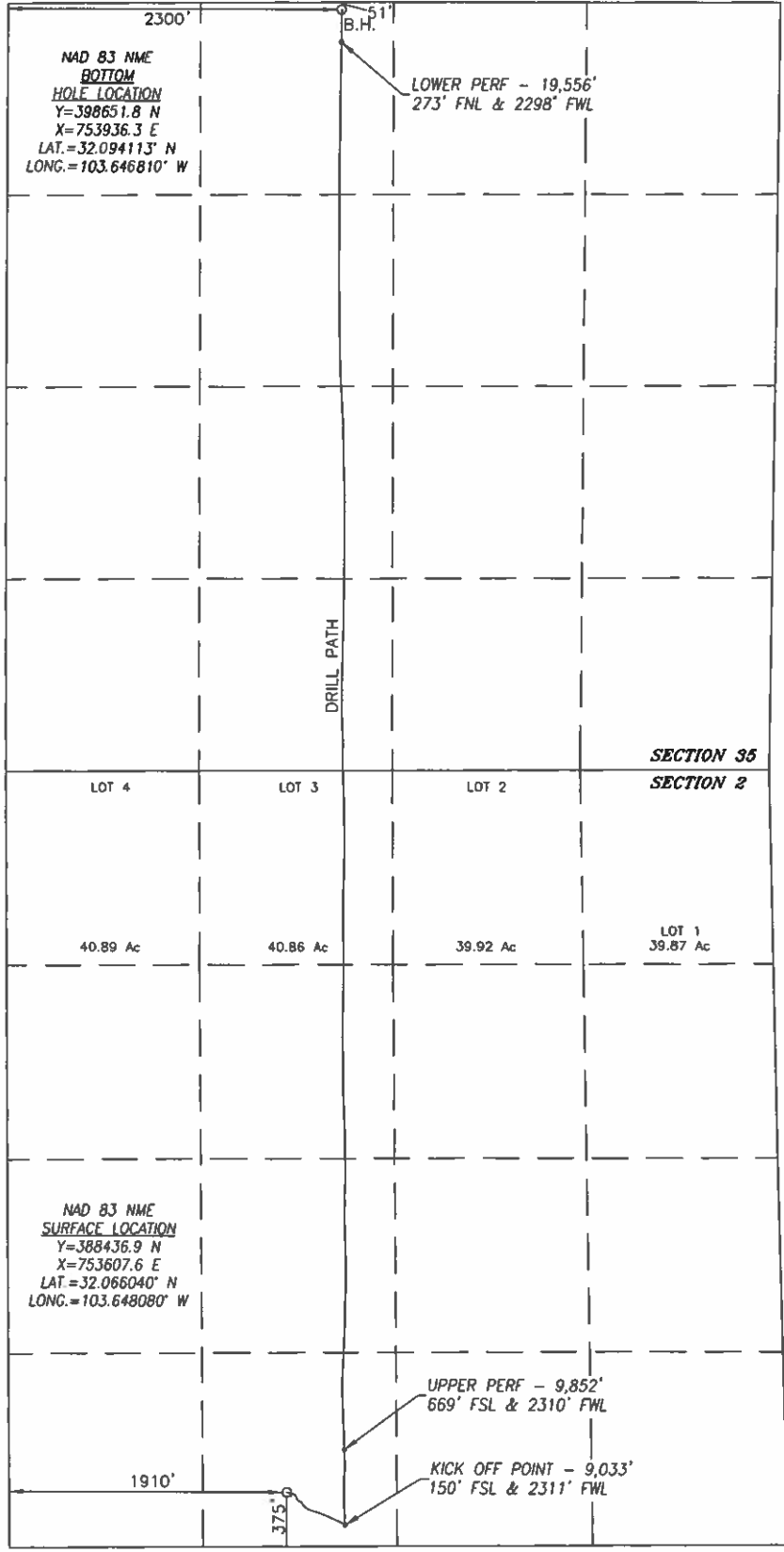
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	25-S	32-E		51	NORTH	2300	WEST	LEA

Dedicated Acres 360	Joint or Infill	Consolidation Code	Order No.
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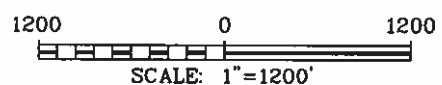
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 301H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3252.6'



SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #301H SUPPLIED TO HARCROW SURVEYING, LLC ON MAY 21, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Janette Barron 08/25/20
Signature Date

Janette Barron
Printed Name

jbarron@concho.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/NOV. 4, 2019
Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



DISTRICT I
 1825 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-6181 Fax: (575) 393-0780

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
 Phone: (505) 478-3480 Fax: (505) 478-3482

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
 As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45833	Pool Code 97903	Pool Name WC-025 G-08 S253235G; Lwr Bone Spring.
Property Code 325390	Property Name HARRIER FEDERAL COM	
OGRID No. 229137	Operator Name COG OPERATING, LLC	
		Well Number 302H
		Elevation 3250.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	26-S	32-E		375	SOUTH	1790	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	25-S	32-E		51	NORTH	1996	WEST	LEA

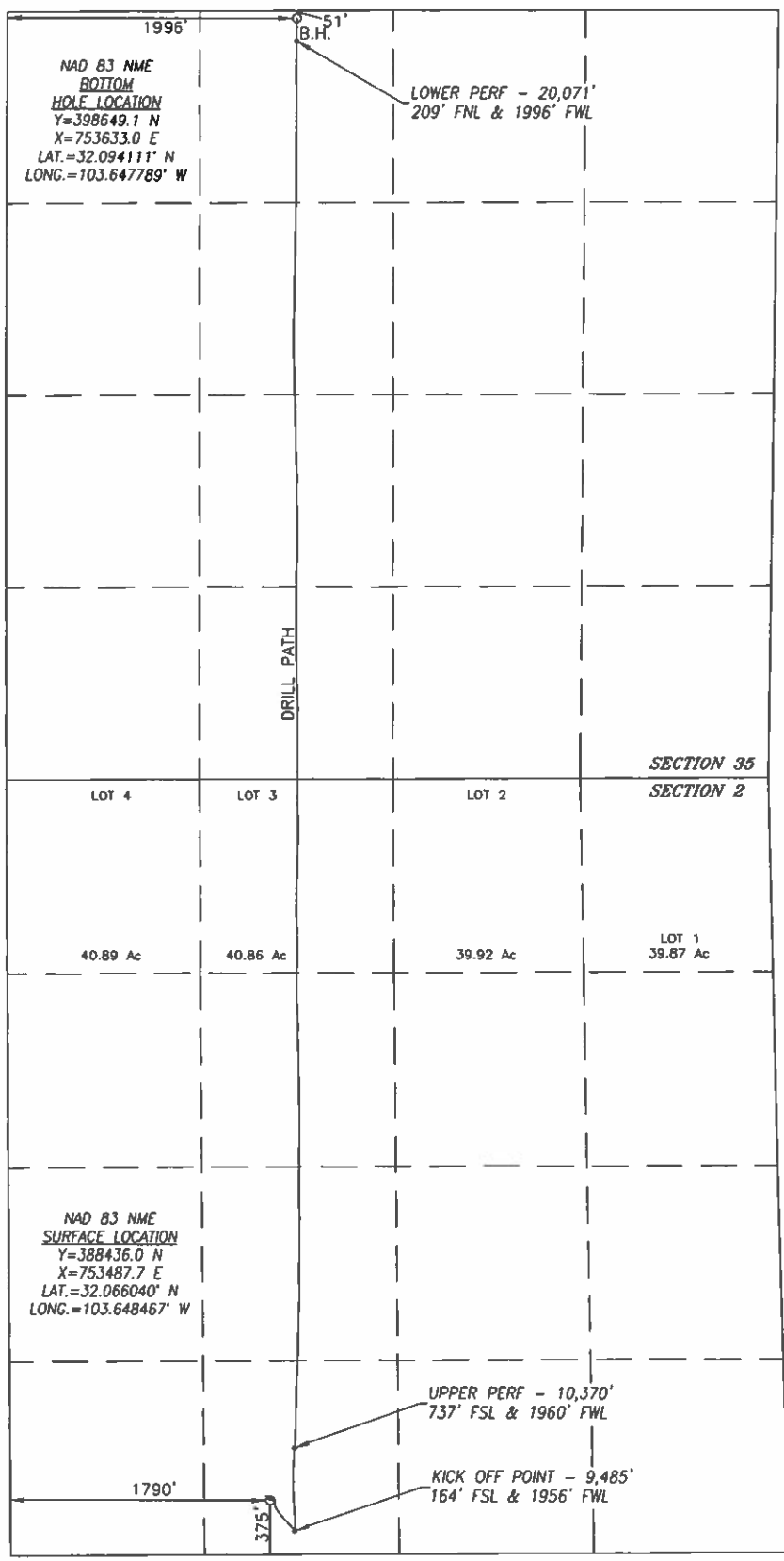
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

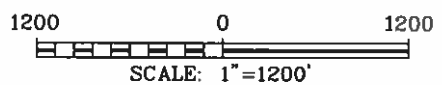
SEE PAGE 2

PAGE 1 OF 2
W.O. #20-802 DRAWN BY: WN

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 302H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3250.3'



SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #302H SUPPLIED TO HARCROW SURVEYING, LLC ON JUNE 2, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
 Signature Date

Jeanette Barron
 Printed Name

jbarron@concho.com
 E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/DEC. 2, 2019
 Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW
 NEW MEXICO
 17777
 LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 6/3/20
 Certificate No. CHAD HARCROW 17777

DISTRICT I
 1625 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-5151 Fax: (575) 393-0720

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45834		Pool Code 97838	Pool Name JENNINGS; UPPER BONE SPRING SHALE
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 303H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3246.8'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	26-S	32-E		375	SOUTH	1460	WEST	LEA

Bottom Hole Location If Different From Surface

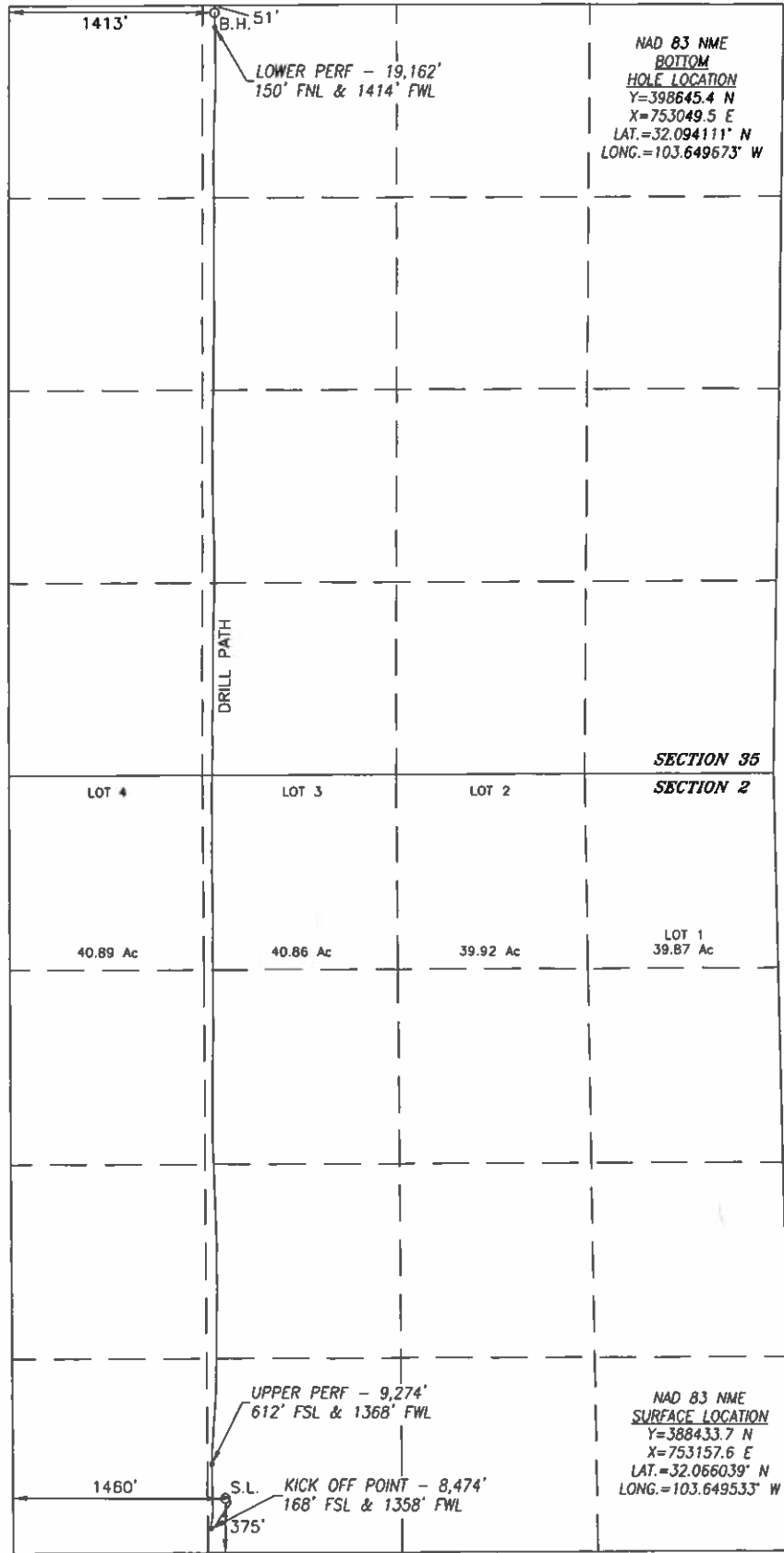
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	25-S	32-E		51	NORTH	1413	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

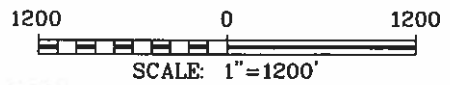
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 303H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3246.8'



SURFACE INFO AND BOREPATH SHOWN HERSON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #303H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 1, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
Signature Date

Jeanette Barron
Printed Name

jbarron@concho.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/DEC. 30, 2019
Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



DISTRICT I
 1825 N. FRENCH DR., HOBBS, NM 88240
 Phone: (575) 393-6181 Fax: (575) 393-0780

DISTRICT II
 811 S. FIRST ST., ARTESIA, NM 88210
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 1000 RIO BRAZOS RD., AZTEC, NM 87410
 Phone: (505) 334-9178 Fax: (505) 334-6170

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 Phone: (505) 478-3480 Fax: (505) 478-3482

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 SOUTH ST. FRANCIS DR.
 Santa Fe, New Mexico 87505

Form C-102
 Revised August 1, 2011
 Submit one copy to appropriate
 District Office

AMENDED REPORT
 As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45835		Pool Code 97903	Pool Name WC-025 G-08 S253235G; Lwr Bone Spring
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 304H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3247.1'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	26-S	32-E		330	SOUTH	780	WEST	LEA

Bottom Hole Location If Different From Surface

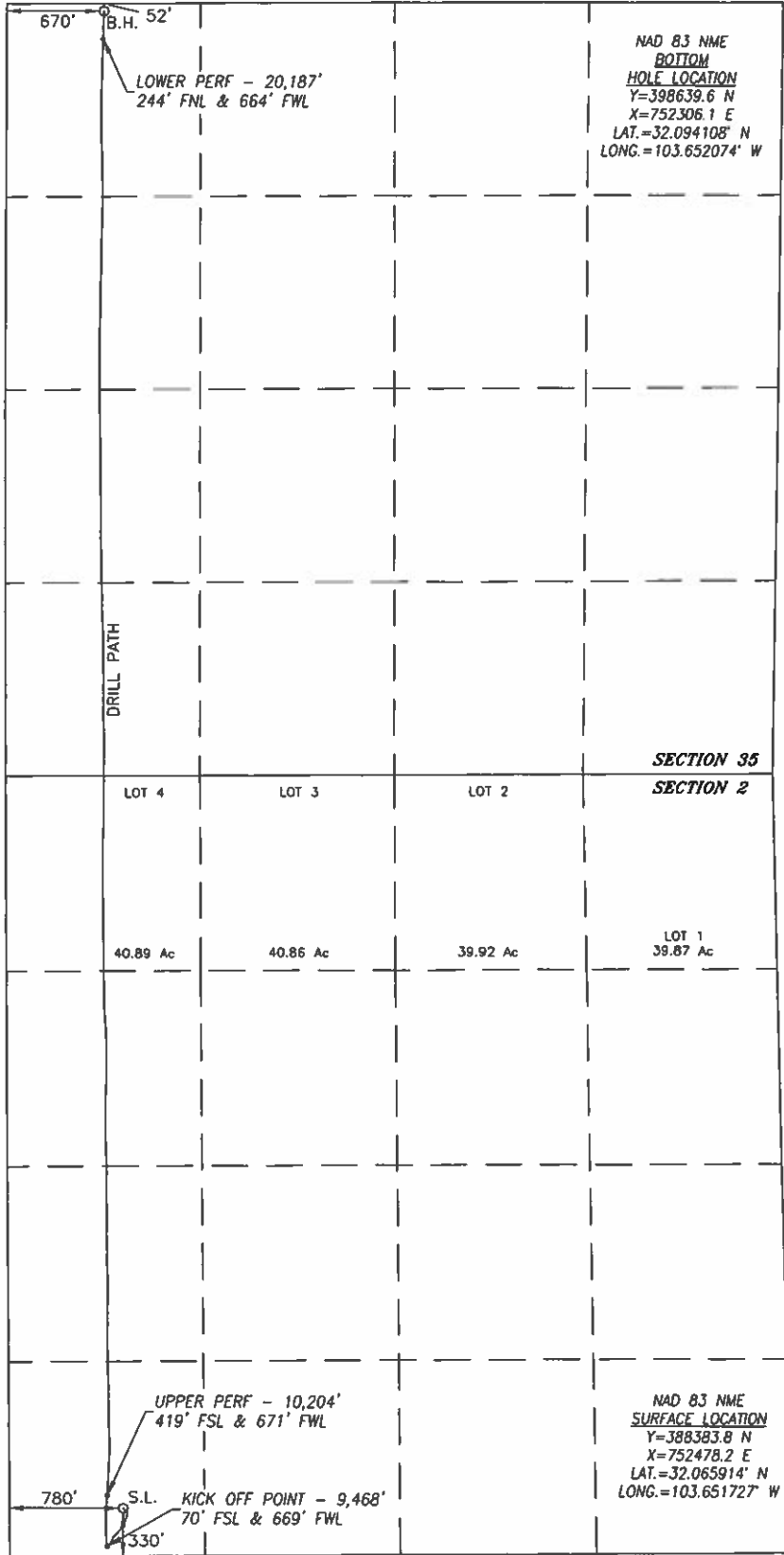
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	25-S	32-E		52	NORTH	670	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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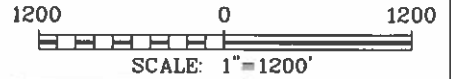
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 325390	Property Name HARRIER FEDERAL COM	Well Number 304H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3247.1'



SURFACE INFO AND BORHPATH SHOWN HEREBY IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #304H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 14, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jeanette Barron 08/25/20
Signature Date

Jeanette Barron
Printed Name

jbarron@concho.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DEC. 12, 2018/
Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



DISTRICT I
1825 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 398-8181 Fax: (575) 398-9720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1285 Fax: (575) 748-9720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45836		Pool Code 97838	Pool Name Jennings ; Upper Bone Springs Shale
Property Code 325390	Property Name HARRIER FEDERAL COM		Well Number 305H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3247.6'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	26-S	32-E		330	SOUTH	720	WEST	LEA

Bottom Hole Location If Different From Surface

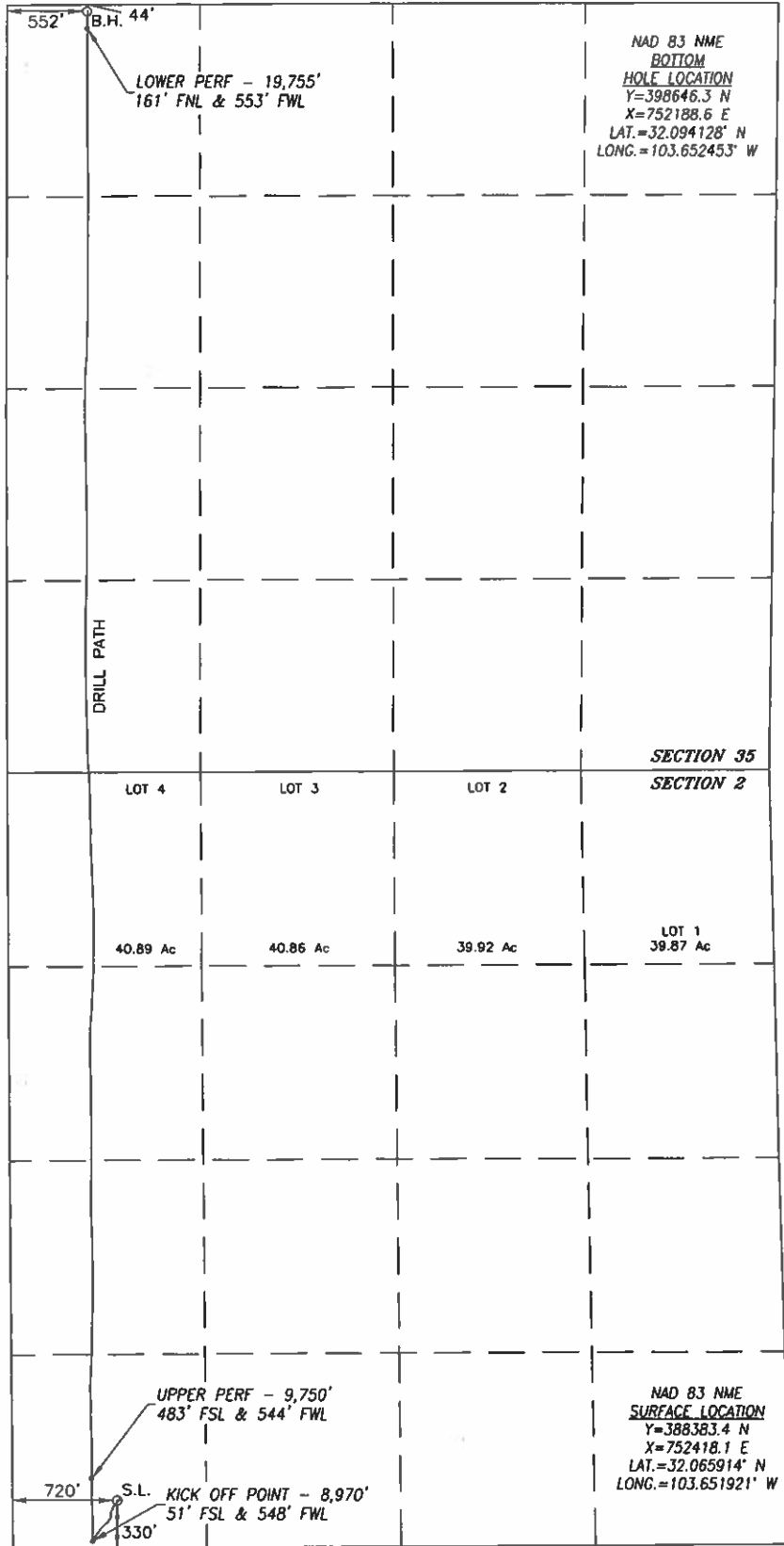
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	25-S	32-E		44	NORTH	552	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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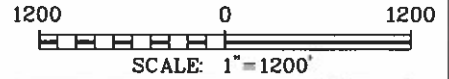
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

Property Code 328390	Property Name HARRIER FEDERAL COM	Well Number 305H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3247.6'



SURFACE INFO AND BOREPATH SHOWN HERSON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE HARRIER FEDERAL COM #305H SUPPLIED TO HARCROW SURVEYING, LLC ON APRIL 16, 2020



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Janette Barron 08/25/20
Signature Date

Janette Barron

Printed Name

jbarron@concho.com

E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

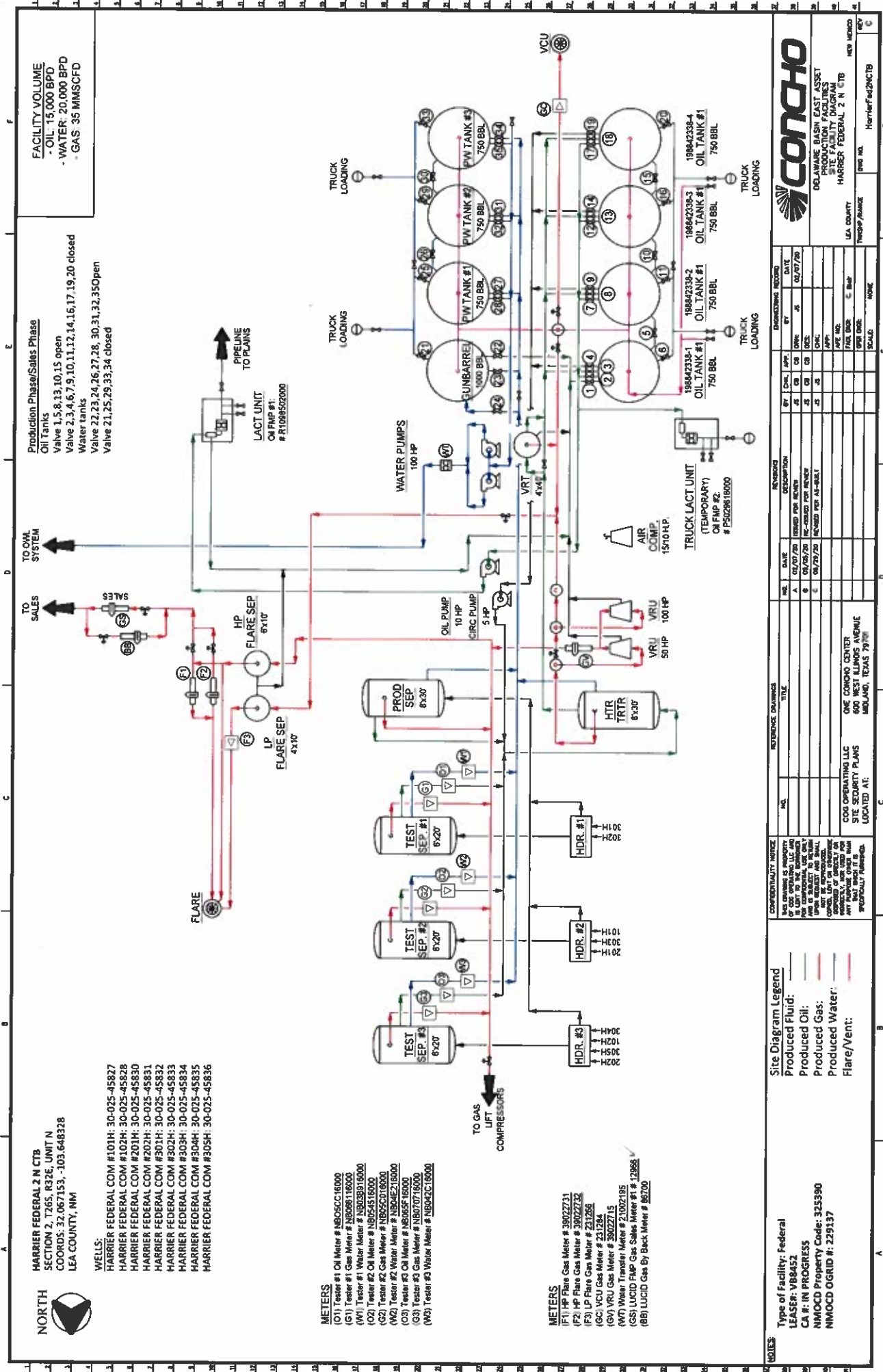
DEC. 12, 2018/NOV. 14, 2019

Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



Chad Harcrow 4/20/20
Certificate No. CHAD HARCROW 17777



Facility Volume

- OIL: 15,000 BPD
- WATER: 20,000 BPD
- GAS: 35 MMSCFD

Production Phase/Sales Phase

Oil Tanks

- Valve 1, 5, 8, 13, 10, 15 open
- Valve 2, 3, 4, 6, 7, 9, 10, 11, 12, 14, 16, 17, 19, 20 closed

Water tanks

- Valve 22, 23, 24, 26, 27, 28, 30, 31, 32, 35 open
- Valve 21, 25, 29, 33, 34 closed

TO OIL SYSTEM

TO SALES

PIPELINE TO PLAINS

LACT UNIT
ON FMP #1
F108652000

TRUCK LOADING

WELLS:

- HARRIER FEDERAL COM #101H: 30-025-45827
- HARRIER FEDERAL COM #102H: 30-025-45828
- HARRIER FEDERAL COM #201H: 30-025-45830
- HARRIER FEDERAL COM #202H: 30-025-45831
- HARRIER FEDERAL COM #301H: 30-025-45832
- HARRIER FEDERAL COM #302H: 30-025-45833
- HARRIER FEDERAL COM #303H: 30-025-45834
- HARRIER FEDERAL COM #304H: 30-025-45835
- HARRIER FEDERAL COM #305H: 30-025-45836

COORDS: 32,067153, -103,648328

LEA COUNTY, NM



- METERS**
- (O1) Tester #1 Oil Meter # N8055C18000
 - (G1) Tester #1 Gas Meter # N8055B18000
 - (W1) Tester #1 Water Meter # N8055B18000
 - (O2) Tester #2 Oil Meter # N8055B18000
 - (G2) Tester #2 Gas Meter # N8055B18000
 - (W2) Tester #2 Water Meter # N8055B18000
 - (O3) Tester #3 Oil Meter # N8055B18000
 - (G3) Tester #3 Gas Meter # N8055B18000
 - (W3) Tester #3 Water Meter # N8055B18000

- METERS**
- (F1) HP Flare Gas Meter # 3802731
 - (F2) LP Flare Gas Meter # 3802732
 - (F3) LP Flare Gas Meter # 231266
 - (G3) VCU Gas Meter # 231266
 - (G4) VRU Gas Meter # 3002715
 - (W4) Water Transfer Meter # F1002105
 - (G5) LUGID FMP Gas Sales Meter # 12988
 - (BB) LUGID Gas By Back Meter # 85700

TRUCK LOADING

- 198842338-1 OIL TANK #1 750 BBL
- 198842338-2 OIL TANK #1 750 BBL
- 198842338-3 OIL TANK #1 750 BBL
- 198842338-4 OIL TANK #1 750 BBL

TRUCK LOADING

TRUCK LACT UNIT (TEMPORARY) ON FMP #2 # P50228518000

AIR COMP 1510 HP

VRU VRU 100 HP

VRU VRU 50 HP

CONCHO
COLLAWE BASH EAST ASSET
PRODUCTION FACILITIES
THE FACILITY DIAGRAM
HARRIER FEDERAL 2 N CTB
LEA COUNTY, NM
800 WEST LINDS AVENUE
MIDLAND, TEXAS 79701

NO.	DATE	BY	CHK.	APP.	REVISION	DESCRIPTION	DATE
A	02/07/20				01	ISSUED FOR REVIEW	02/07/20
B	09/09/20				02	RE-ISSUED FOR REVIEW	09/09/20
C	09/29/20				03	REVISOR FOR AS-BUILT	09/29/20

COG OPERATING LLC
SITE SECURITY PLANS
LOCATED AT:

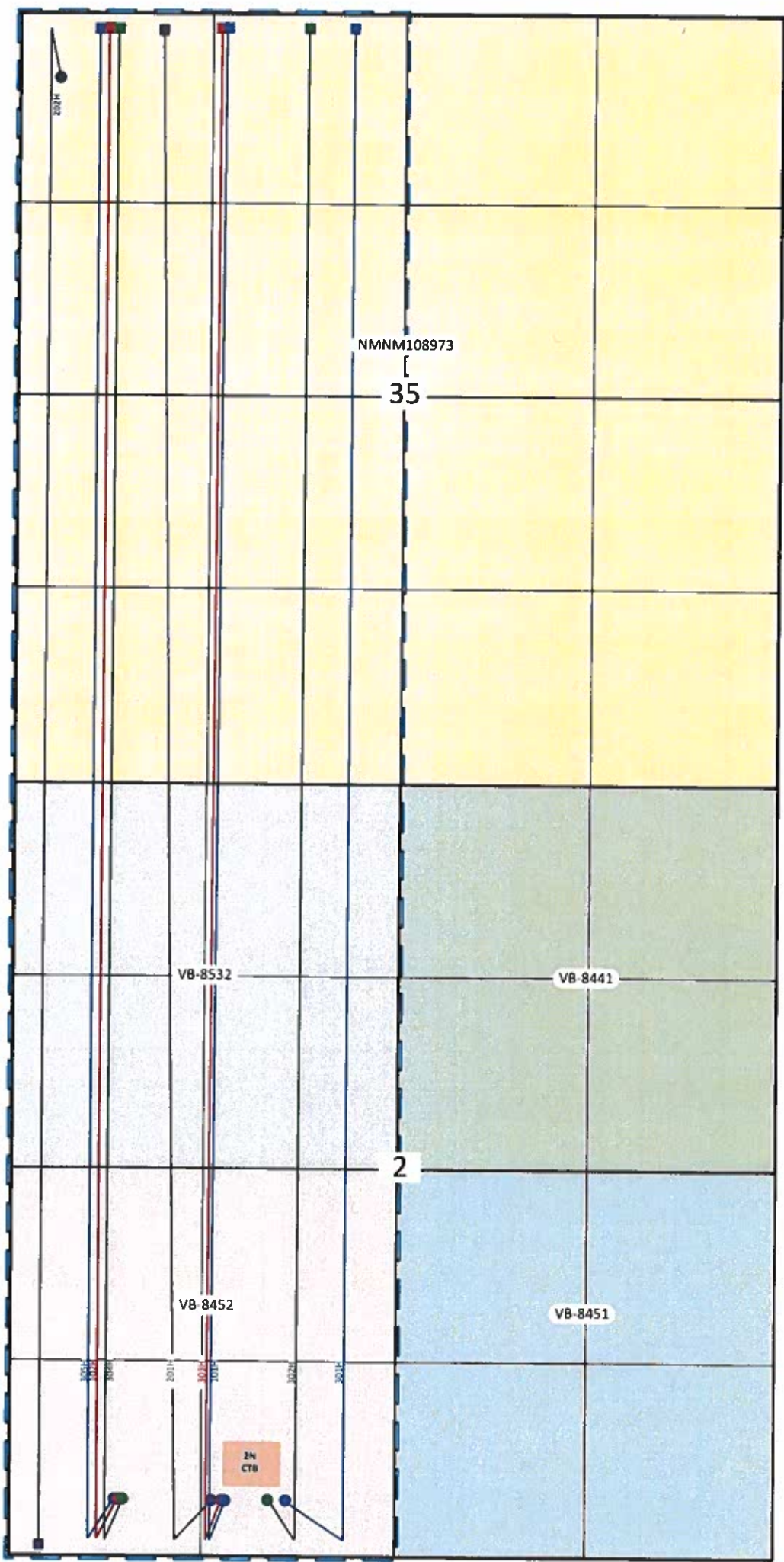
ONE CONCHO CENTER
600 WEST LINDS AVENUE
MIDLAND, TEXAS 79701

Site Diagram Legend:

- Produced Oil: (Blue line)
- Produced Gas: (Red line)
- Produced Water: (Green line)
- Flare/Vent: (Black line)

Notes:

Type of Facility: Federal
LEASER: V88452
CA #: IN PROGRESS
NIMCOB Property Code: 325590
NIMCOB OGRID #: 229137



Harrier Federal Wells

Sec. 35-T25S-R32E &
Sec. 2-T26S-R32E
Lea County, NM

- Upr Avalon SH SHL
- Upr Avalon SH BHL
- Middle Avalon SH SHL
- Middle Avalon SH BHL
- Lwr Avalon SH SHL
- Lwr Avalon SH BHL
- 1st Bone Spring SHL
- 1st Bone Spring BHL
- Bone Spring CA

Harrier Fed Com 101H, 102H, 201H, 202H, 301H-305H wells



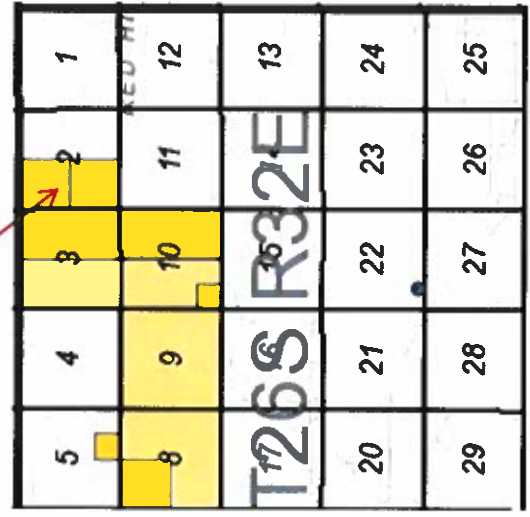
Harrier Fed 2 N CTB

Harrier Federal Com 101H, 102H, 201H, 202H, 201H, 301H, 302H

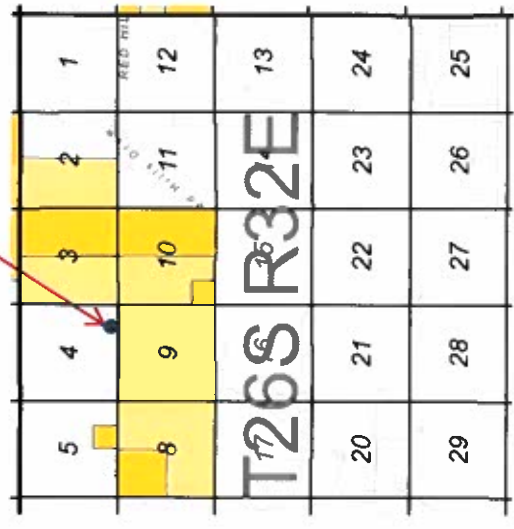
&

Red Hills and Jal Offload Station Map

Harrier Federal Com 101H, 102H, 201H, 202H, 301H, 302H
Lea County, NM



Red Hills Offload Station
Lea County, NM



Jal Offload Station
Lea County, NM





Matt Solomon
Staff Landman

June 8, 2020

RE: Off-Lease Measurement For The Harrier Fed Com 101H, 102H, 201H, 202H, 301H-305H Wells

To Whom It Concerns:

My name is Matt Solomon, and I am the landman that oversees the captioned wells COG Operating LLC ("Concho").

Regarding the captioned wells the following statements are true:

- 1) The revenue owners are identical as defined in NMAC 19.15.12.7.B.
- 2) The leases or pools have the same working, royalty and overriding royalty owners in exactly the same percentages.

Respectfully submitted,

Matt Solomon - CPL, J.D.
Staff Landman
432-685-4352 (o)
832-544-9492 (c)
msolomon@concho.com

Production Summary Report					
API: 30-025-45827					
HARRIER FEDERAL COM #101H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	14529	28332	56716

Production Summary Report					
API: 30-025-45828					
HARRIER FEDERAL COM #102H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	6575	17699	18252

Production Summary Report					
API: 30-025-45830					
HARRIER FEDERAL COM #201H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	11099	23282	38824

Production Summary Report					
API: 30-025-45831					
HARRIER FEDERAL COM #202H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	6962	15853	36819

Production Summary Report					
API: 30-025-45832					
HARRIER FEDERAL COM #301H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	10826	19780	39517

Production Summary Report					
API: 30-025-45833					
HARRIER FEDERAL COM #302H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97903] WC-025 G-08 S253235G;LWR BONE SPRING SHALE	Jun	8851	16498	57471

Production Summary Report					
API: 30-025-45834					
HARRIER FEDERAL COM #303H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	6600	16238	28757

Production Summary Report					
API: 30-025-45835					
HARRIER FEDERAL COM #304H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97903] WC-025 G-08 S253235G;LWR BONE SPRIN	Jun	7465	15402	65152

Production Summary Report					
API: 30-025-45836					
HARRIER FEDERAL COM #305H					
Printed On: Tuesday, August 25 2020					
			Production		
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)
2020	[97838] JENNINGS;UPPER BONE SPRING SHALE	Jun	6847	16415	28222

Harrier

Red Hills, Delaware Basin East – North Team

Project Overview:

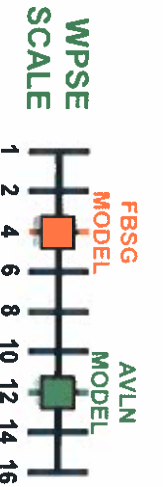
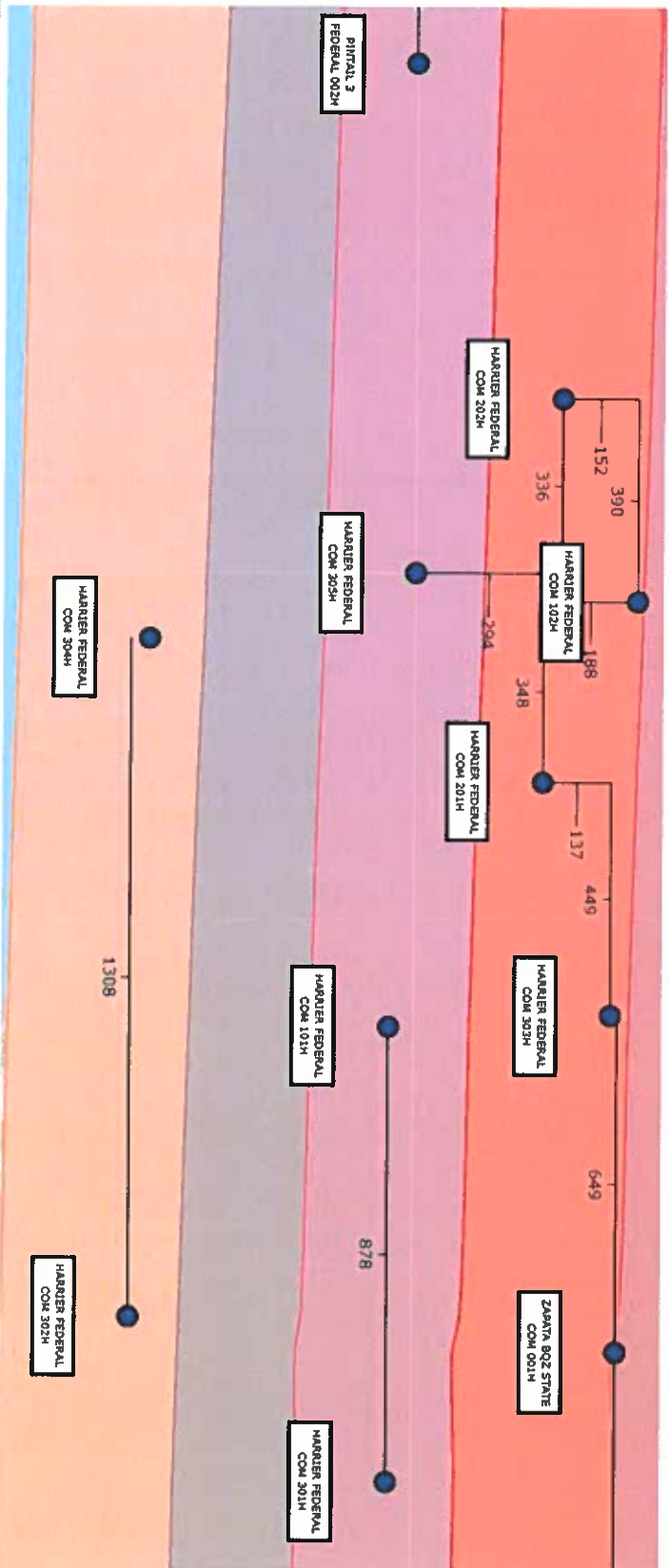
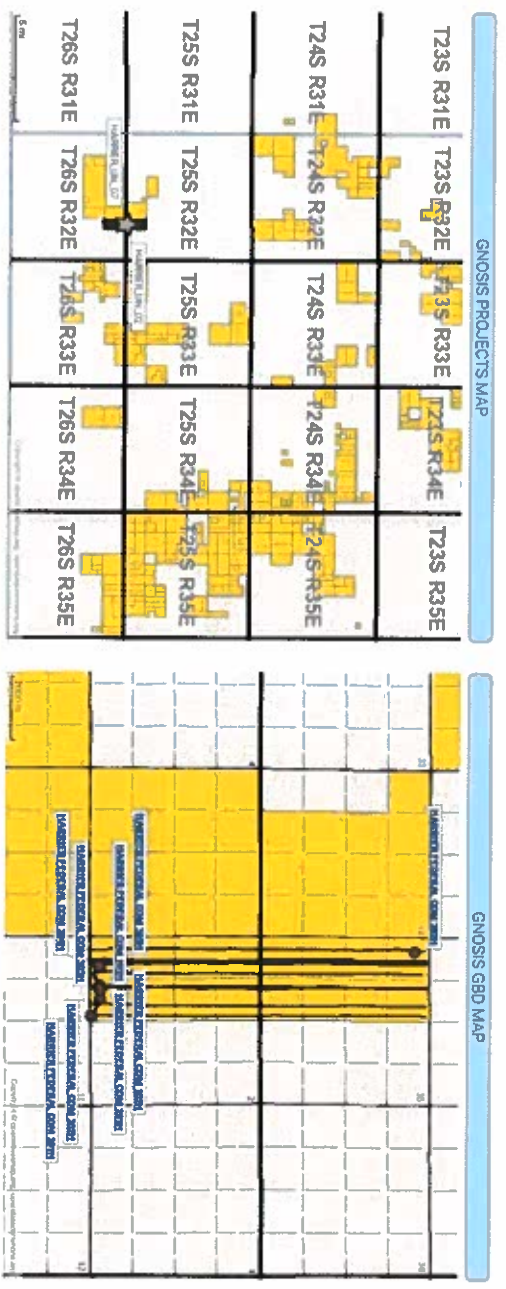
- Targets: UAVL (2), MAVL (2), LAVL (3), FBSSG (2)
- Lateral Length: 2 mile
- First Production: June, 2020

Current Production:

- 10,275 BOPD average lease production
- 500 BOPD above MY20
- 4,330 MCFPD above MY20

Operational Notes:

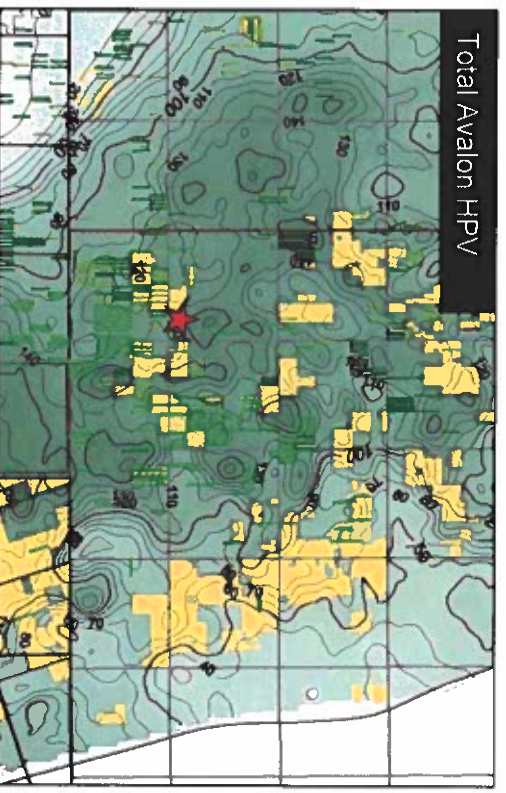
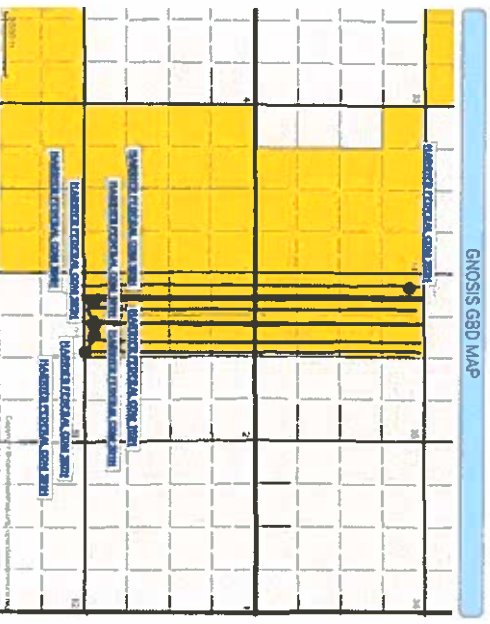
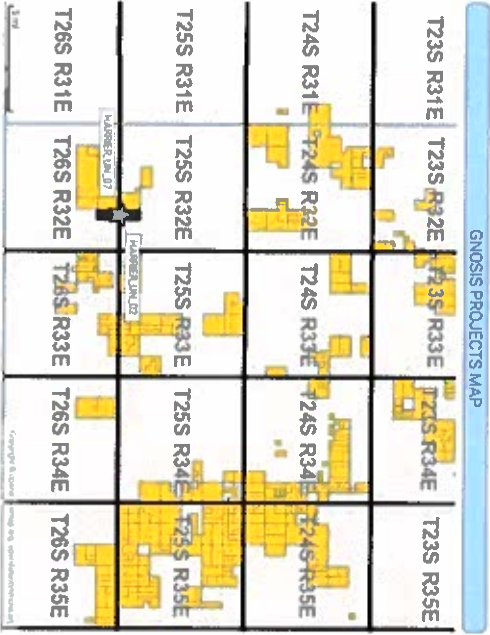
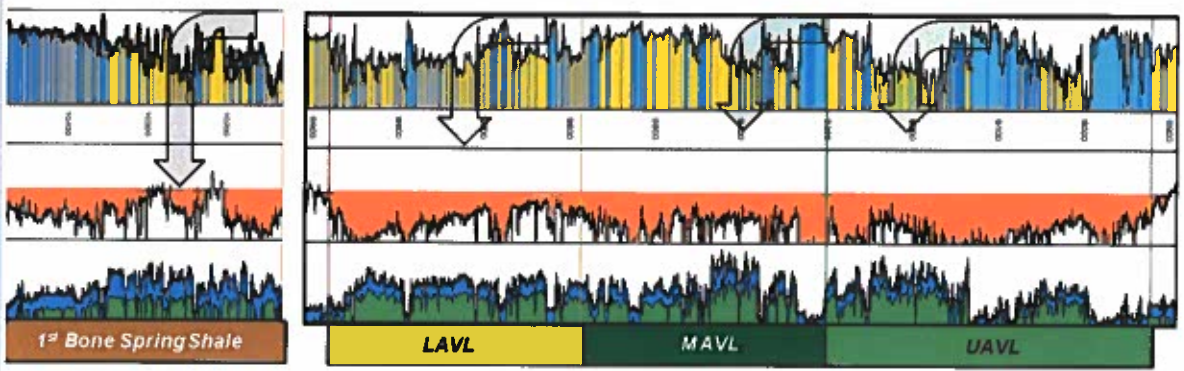
- Wells choked back to meet Lucid gas limitation



Harrier

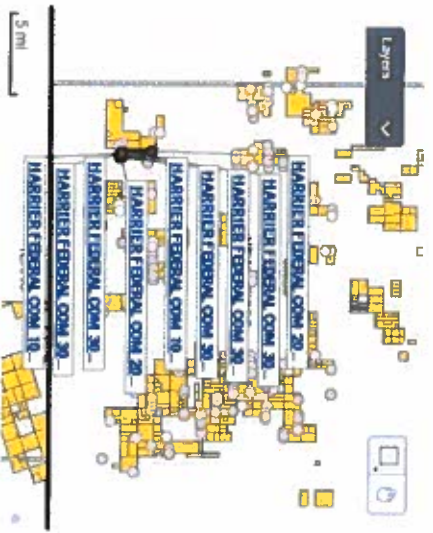
Red Hills, Delaware Basin East – North Team

Harrier 35 Fed Com #1H



Harrier v. Model

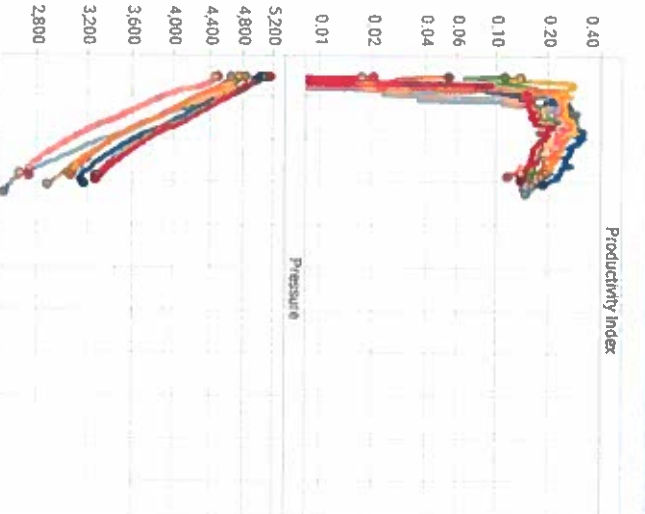
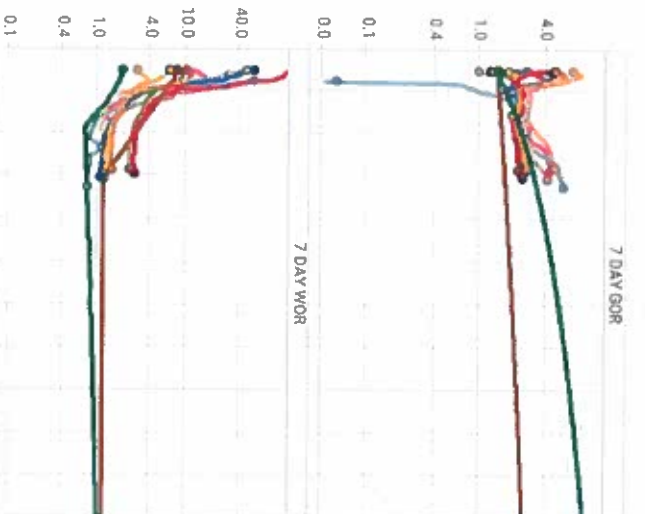
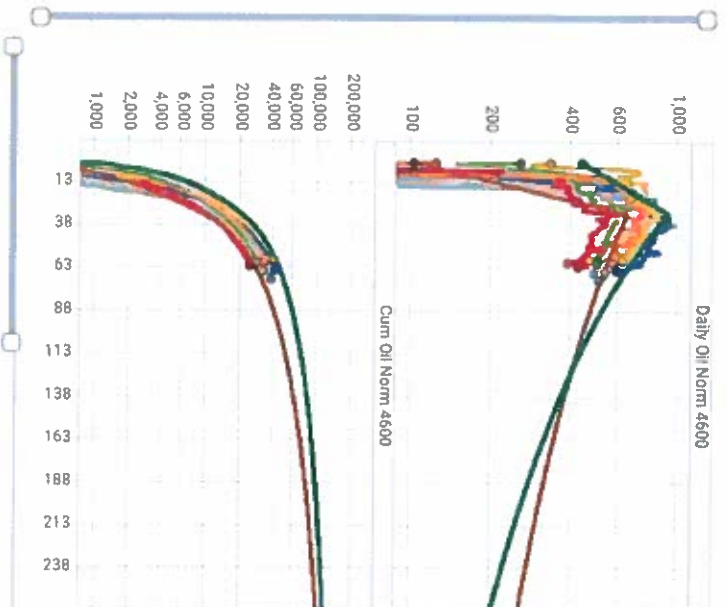
Red Hills, Delaware Basin East – North Team



date	Oil	Gas	Water
8/1/2020	12,453	39,811	18,407
8/2/2020	12,151	39,810	18,052
8/3/2020	11,782	39,492	18,042
8/4/2020	13,295	40,823	17,868
8/5/2020	11,754	38,216	17,253
8/6/2020	11,131	37,189	16,518
8/7/2020	11,516	38,529	16,971
8/8/2020	10,968	38,914	16,318
8/9/2020	11,104	39,023	16,467
8/10/2020	10,339	34,981	15,592
8/11/2020	10,998	38,726	16,281
8/12/2020	10,267	36,449	15,576
8/13/2020	9,775	36,759	15,558
8/14/2020	10,633	35,965	15,033
8/15/2020	9,916	35,341	15,281

Alias	Reservoir	FirstProdDate	ClosestOffsetL	Fluid/System	TL	LDPerFoot	GalPerFoot
HARRIER 35 FEDERAL COM 01H	TBSG				3,798	599	701
HARRIER FEDERAL COM 201H	UNKNOWN		409	Slick WATER	9864	2,016	2,256
HARRIER FEDERAL COM 102H	UNKNOWN		408	Slick WATER	9,807	2,030	2,242
HARRIER FEDERAL COM 202H	UNKNOWN		135	Slick WATER	9,710	2,012	2,088
HARRIER FEDERAL COM 103H	UNKNOWN			UNKNOWN	10,1		
HARRIER FEDERAL COM 303H	UNKNOWN		873	Slick WATER	9,751	2,008	2,278
HARRIER FEDERAL COM 301H	UNKNOWN		873	Slick WATER	9,704	2,019	2,203
HARRIER FEDERAL COM 304H	UNKNOWN		1,324	Slick WATER	9,701	2,020	2,236
HARRIER FEDERAL COM 304H	UNKNOWN		1,325	Slick WATER	9,983	2,032	2,482
HARRIER FEDERAL COM 101H	UNKNOWN		443	Slick WATER	9,888	2,022	2,263
HARRIER FEDERAL COM 305H	UNKNOWN		140	Slick WATER	10,0	2,034	2,223
DEM20_RH_TBS_200	FBSG				9,800		
DEM20_RH_AS_200	AVLN				9,800		

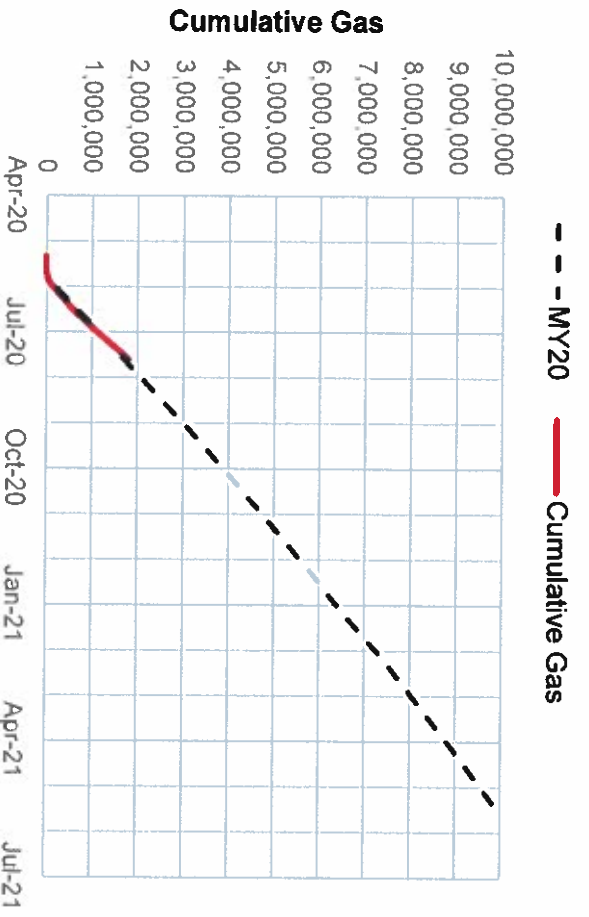
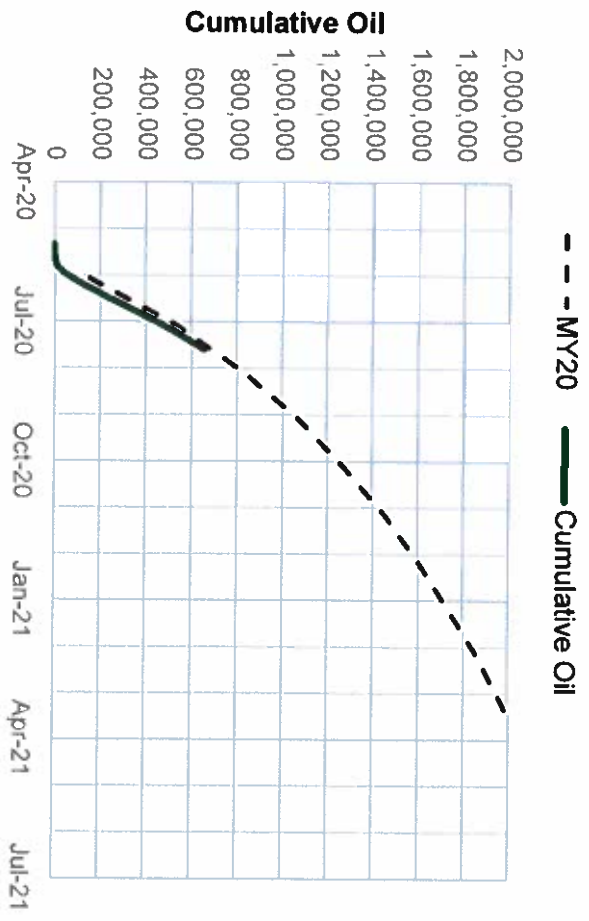
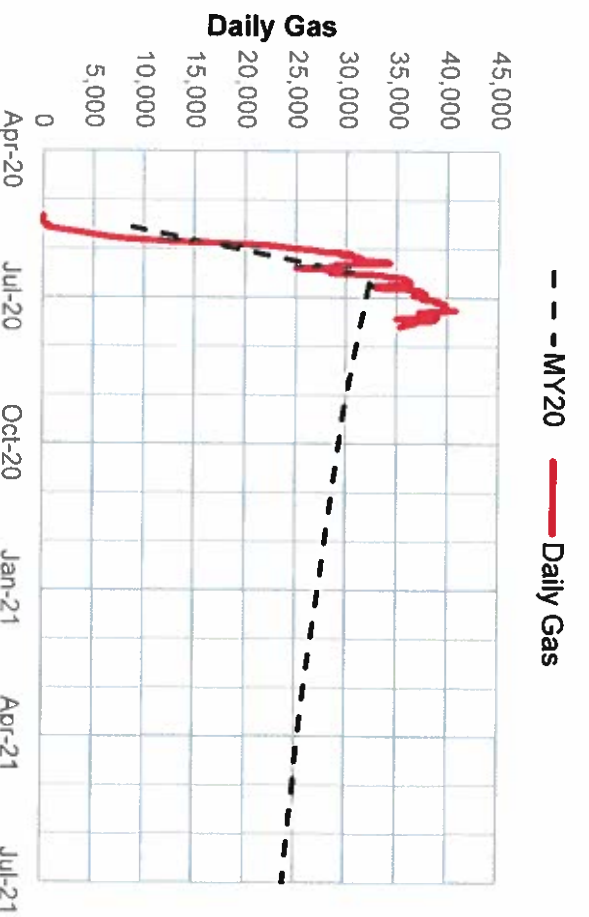
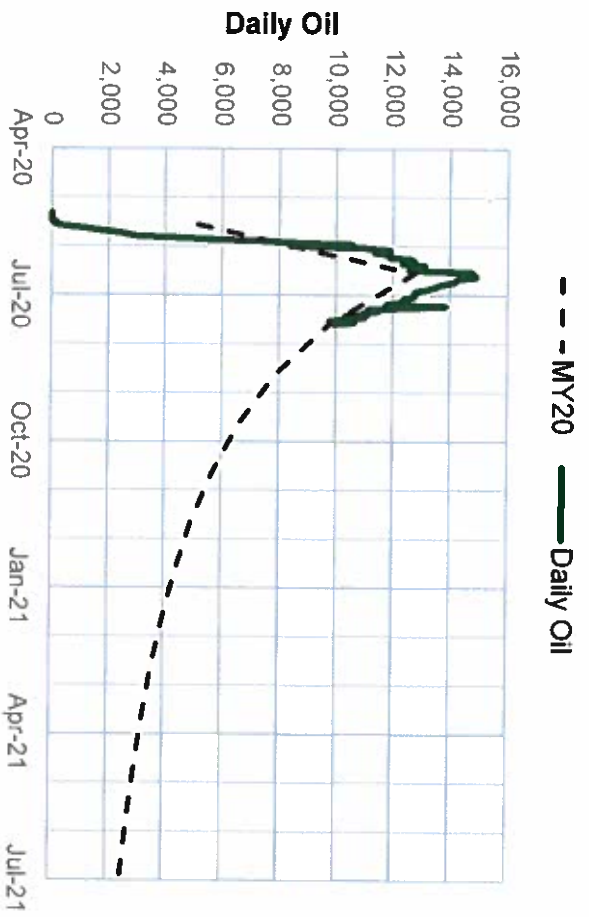
- Color by Alias
- DEM20_RH_TBS_200
 - DEM20_RH_AS_200
 - HARRIER FEDERAL COM 101H
 - HARRIER FEDERAL COM 102H
 - HARRIER FEDERAL COM 201H
 - HARRIER FEDERAL COM 202H
 - HARRIER FEDERAL COM 301H
 - HARRIER FEDERAL COM 302H
 - HARRIER FEDERAL COM 303H
 - HARRIER FEDERAL COM 304H
 - HARRIER FEDERAL COM 304H
 - HARRIER FEDERAL COM 305H



Harrier v. MY20

Red Hills, Delaware Basin East – North Team

MY20 Factors
303H: 80%
301H: 80%



Federal Communitization Agreement

Contract No. _____

THIS AGREEMENT entered into as of the **1st day of June, 2019**, by and between the parties subscribing, ratifying, or consenting hereto, such parties being hereinafter referred to as "parties hereto."

WITNESSETH:

WHEREAS, the Act of February 25, 1920 (41 Stat. 437), as amended and supplemented, authorizes communitization or drilling agreements communitizing or pooling a Federal oil and gas lease, or any portion thereof, with other lands, whether or not owned by the United States, when separate tracts under such Federal lease cannot be independently developed and operated in conformity with an established well-spacing program for the field or area and such communitization or pooling is determined to be in the public interest; and

WHEREAS, the parties hereto own working, royalty or other leasehold interests, or operating rights under the oil and gas leases and lands subject to this agreement which cannot be independently developed and operated in conformity with the well-spacing program established for the field or area in which said lands are located; and

WHEREAS, the parties hereto desire to communitize and pool their respective mineral interests in lands subject to this agreement for the purpose of developing and producing communitized substances in accordance with the terms and conditions of this agreement:

NOW, THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is mutually covenanted and agreed by and between the parties hereto as follows:

- 1. The lands covered by this agreement (hereinafter referred to as "communitized area") are described as follows:

Township 25 South, Range 32 East, N.M.P.M.
Section 35: W/2

Township 26 South, Range 32 East, N.M.P.M.
Section 2: W/2
Lea County, New Mexico

Containing **640.00** acres, and this agreement shall include only the **Bone Spring** formation as defined by the NMOCD, underlying said lands and the oil, the natural gas, and associated liquid hydrocarbons hereafter referred to as "communitized substances," producible from such formation.

2. Attached hereto, and made a part of this agreement for all purposes is Exhibit "A", a plat designating the communitized area and, Exhibit "B", designating the operator of the communitized area and showing the acreage, percentage and ownership of oil and gas interests in all lands within the communitized area, and the authorization, if any, for communitizing or pooling any patented or fee lands within the communitized area.
3. The Operator of the communitized area shall be **COG Operating LLC, as Operator, 600 W. Illinois Avenue, Midland, Texas 79701**. All matters of operations shall be governed by the operator under and pursuant to the terms and provisions of this agreement. A successor operator may be designated by the owners of the working interest in the communitized area and four (4) executed copies of a designation of successor operator shall be filed with the Authorized Officer.
4. Operator shall furnish the Secretary of the Interior, or his authorized representative, with a log and history of any well drilled on the communitized area, monthly reports of operations, statements of oil and gas sales and royalties and such other reports as are deemed necessary to compute monthly the royalty due the United States, as specified in the applicable oil and gas operating regulations.
5. The communitized area shall be developed and operated as an entirety, with the understanding and agreement between the parties hereto that all communitized substances produced there from shall be allocated among the leaseholds comprising said area in the proportion that the acreage interest of each leasehold bears to the entire acreage interest committed to this agreement.

All proceeds, 8/8ths, attributed to unleased Federal or Indian lands included within the CA area are to be paid into the appropriate Unleased Lands Account or Indian Trust Account by the designated operator until the land is leased or ownership is established.

6. The royalties payable on communitized substances allocated to the individual leases comprising the communitized area and the rentals provided for in said leases shall be determined and paid on the basis prescribed in each of the individual leases. Payments of rentals under the terms of leases subject to this agreement shall not be affected by this agreement except as provided for under the terms and provisions of said leases or as may herein be otherwise provided. Except as herein modified and changed, the oil and gas leases subject to this agreement shall remain in full force and effect as originally made and issued. It is agreed that for any Federal lease bearing a sliding- or step-scale rate of royalty, such rate shall be determined separately as to production from each communitization agreement to which such lease may be committed, and separately as to any noncommunitized lease production, provided, however, as to leases where the rate of royalty for gas is based on total lease production per day, such rate shall be determined by the sum of all communitized production allocated to such a lease plus any noncommunitized lease production.

7. There shall be no obligation on the lessees to offset any well or wells completed in the same formation as covered by this agreement on separate component tracts into which the communitized area is now or may hereafter be divided, nor shall any lessee be required to measure separately communitized substances by reason of the diverse ownership thereof, but the lessees hereto shall not be released from their obligation to protect said communitized area from drainage of communitized substances by a well or wells which may be drilled offsetting said area.
8. The commencement, completion, continued operation, or production of a well or wells for communitized substances on the communitized area shall be construed and considered as the commencement, completion, continued operation, or production on each and all of the lands within and comprising said communitized area, and operations or production pursuant to this agreement shall be deemed to be operations or production as to each lease committed hereto.
9. Production of communitized substances and disposal thereof shall be in conformity with allocation, allotments, and quotas made or fixed by any duly authorized person or regulatory body under applicable Federal or State statutes. This agreement shall be subject to all applicable Federal and State laws or executive orders, rules and regulations, and no party hereto shall suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this agreement if such compliance is prevented by, or if such failure results from, compliance with any such laws, orders, rules or regulations.
10. The date of this agreement is **June 1, 2019**, and it shall become effective as of this date or from the onset of production of communitized substances, whichever is earlier upon execution by the necessary parties, notwithstanding the date of execution, and upon approval by the Secretary of the Interior or by his duly authorized representative, and shall remain in force and effect for a period of 2 years and for as long as communitized substances are, or can be, produced from the communitized area in paying quantities: Provided, that prior to production in paying quantities from the communitized area and upon fulfillment of all requirements of the Secretary of the Interior, or his duly authorized representative, with respect to any dry hole or abandoned well, this agreement may be terminated at any time by mutual agreement of the parties hereto. This agreement shall not terminate upon cessation of production if, within 60 days thereafter, reworking or drilling operations on the communitized area are commenced and are thereafter conducted with reasonable diligence during the period of nonproduction. The 2-year term of this agreement will not in itself serve to extend the term of any Federal lease which would otherwise expire during said period.
11. The covenants herein shall be construed to be covenants running with the land with respect to the communitized interests of the parties hereto and their successors in interests until this agreement terminates and any grant, transfer, or conveyance of any such land or interest subject hereto, whether voluntary or not, shall be and hereby is conditioned upon the assumption of all obligations hereunder by the grantee, transferee, or other successor in interest, and as to Federal land shall be subject to approval by the Secretary of the Interior, or his duly authorized representative.

- 12. It is agreed between the parties hereto that the Secretary of the Interior, or his duly authorized representative, shall have the right of supervision over all Fee and State mineral operations within the communitized area to the extent necessary to monitor production and measurement, and assure that no avoidable loss of hydrocarbons occur in which the United States has an interest pursuant to applicable oil and gas regulations of the Department of the Interior relating to such production and measurement.
- 13. This agreement shall be binding upon the parties hereto and shall extend to and be binding upon their respective heirs, executors, administrators, successors, and assigns.
- 14. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument, in writing, specifically referring hereto, and shall be binding upon all parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document.
- 15. Nondiscrimination. In connection with the performance of work under this agreement, the operator agrees to comply with all the provisions of Section 202(1) to (7) inclusive, of Executive Order 11246 (30F.R. 12319), as amended, which are hereby incorporated by reference in this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written and have set opposite their respective names the date of execution.

OPERATOR:
COG OPERATING LLC

Date: _____ By: _____
Sean Johnson
Attorney-In-Fact

ACKNOWLEDGEMENT

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me on the ____ day of _____, 2019, by Sean Johnson, Attorney-In-Fact of **COG Operating LLC**, a Delaware Limited Liability Company, on behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

WORKING INTEREST OWNERS AND/OR LESSEES OF RECORD

COG OPERATING LLC

Date: _____

By: _____
Sean Johnson
Attorney-In-Fact

TUMBLER OPERATING PARTNERS, LLC

Date: _____

By: _____
Name: _____
Title: _____

SHARBRO ENERGY LLC

Date: _____

By: _____
Name: _____
Title: _____

ACKNOWLEDGEMENTS

STATE OF TEXAS

§
§
§

COUNTY OF MIDLAND

This instrument was acknowledged before me on the _____ day of _____, 2019,
by Sean Johnson, Attorney-In-Fact of **COG Operating LLC**, a Delaware Limited Liability
Company, on behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

STATE OF _____ §
COUNTY OF _____ §

This instrument was acknowledged before me on the _____ day of _____, 2019,
by _____, as _____ of **TUMBLER
OPERATING PARTNERS, LLC**, a _____, on
behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

STATE OF _____ §
COUNTY OF _____ §

This instrument was acknowledged before me on the _____ day of _____, 2019,
by _____, as _____ of
SHARBRO ENERGY LLC, a _____, on behalf
of same.

Notary Public in and for the State of Texas
My Commission expires: _____

EXHIBIT "A"

Plat of communitized area covering 640.00 acres in W/2 of Section 35, Township 25 South, Range 32 East and W/2 of Section 2, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico

Harrier Fed Com




Section 35		Tract 1: W/2 (320.00 ac) USA NM- 108973 	
Section 2		Tract 2: NW/4 (160.00 ac) State of NM VB-0853 	
		Tract 3: SW/4 (160.00 ac) State of NM VB-0845 	

EXHIBIT "B"

Attached to and made a part of that Communitization Agreement dated June 1, 2019, covering the W/2 of Section 35, Township 25 South, Range 32 East, and the W/2 of Section 2, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico

Operator of Communitized Area: **COG Operating LLC**

DESCRIPTION OF LEASES COMMITTED:

I. OIL AND GAS LEASES SUBJECT TO AGREEMENT:

Lease No. 1

Lease Effective Date:	9/1/2002
Lease Term:	10 years
Recordation:	Not Recorded
Lessor:	USA NM-108973
Original Lessee:	The Allar Company
Current Lessee:	COG Operating LLC
Description of Lands Committed:	Insofar and only insofar as said lease covers: <u>Township 25 South, Range 32 East</u> Section 35: W/2 Lea County, New Mexico
Number of Acres:	320.00
Royalty Rate:	12½%
WI Owner Names and Interests:	COG Operating LLC 100%
ORRI Owners:	Of Record

Lease No. 2

Lease Effective Date:	2/1/2006
Lease Term:	5 years
Recordation:	Not Recorded
Lessor:	The State of New Mexico, acting by and through its Commissioner of Public Lands VB-0853
Original Lessee:	Yates Petroleum Corporation
Current Lessee:	COG Operating LLC
Description of Lands Committed:	Insofar and only insofar as said lease covers: <u>Township 26 South, Range 32 East</u> Section 2: NW/4 Lea County, New Mexico
Number of Acres:	160.00
Royalty Rate:	3/16%
WI Owner Names and Interests:	COG Operating LLC 70.140020% OXY Y-1 Company 25.965200% Sharbro Energy LLC 3.894780%
ORRI Owners:	Of Record

Lease No. 3
 Lease Effective Date: 2/1/2006
 Lease Term: 5 years
 Recordation: Not Recorded
 Lessor: **The State of New Mexico, acting by and through its Commissioner of Public Lands VB-0845**
 Original Lessee: Yates Petroleum Corporation
 Current Lessee: COG Operating LLC
 Description of Lands Committed: **Insofar and only insofar as said lease covers: Township 26 South, Range 32 East Section 2: SW/4 Lea County, New Mexico**
 Number of Acres: 160.00
 Royalty Rate: 3/16%
 WI Owner Names and Interests: COG Operating LLC 70.140020%
 OXY Y-1 Company 25.965200%
 Sharbro Energy LLC 3.894780%
 ORRI Owners: Of Record

RECAPITULATION

Tract Number	Number of Acres Committed	Percentage of Interest in Communitized Area
No. 1	320.00	50.0000%
No. 2	160.00	25.0000%
No. 3	160.00	25.00000%
	640.00	100.0000%

**NM State Land Office
Oil, Gas, & Minerals Division**

**STATE/FEDERAL OR
STATE/FEDERAL/FEE**
Revised Feb. 2013

ONLINE Version
COMMUNITIZATION AGREEMENT

Contract No. _____

THIS AGREEMENT, entered into as of the date shown in Section 10 hereof by and between the parties subscribing, ratifying, or consenting hereto, such parties being hereinafter referred to as "parties hereto,"

WITNESSETH:

WHEREAS, the Act of February 25, 1920, 41 Stat. 437, as amended and supplemented, authorizes communitization or drilling agreements communitizing or pooling a federal oil and gas lease, or any portions thereof, with other lands, whether or not owned by the United States, when separate tracts under such federal lease cannot be independently developed and operated in conformity with an established well-spacing program for the field or area, and such communitization or pooling is determined to be in the public interest; and,

WHEREAS, the Commissioner of Public Lands of the State of New Mexico, herein called "the Commissioner", is authorized to consent to and approve agreements pooling state oil and gas leases or any portion thereof, when separate tracts under such state leases cannot be independently developed and operated economically in conformity with well-spacing and gas proration rules and regulations established for the field or area and such pooling is determined to be in the public interest; and,

WHEREAS, the parties hereto own working, royalty, or other leasehold interests, or operating rights under the oil and gas leases and land subject to this agreement which cannot be independently developed and operated in conformity with the well-spacing program established for the field or area in which said lands are located; and,

WHEREAS, the parties hereto desire to communitize and pool their respective mineral interests in lands subject to this agreement for the purpose of developing and producing communitized substances in accordance with the terms and conditions of the agreement;

NOW, THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is mutually covenanted and agreed by and between the parties hereto as follows:

1. **The lands covered by this agreement (hereinafter referred to as "communitized area") are described as follows:**
W/2 of Section 35, T25S-R32E, NMPM and W/2 of Section 2, T26S-R32E, NMPM, Lea County, NM containing **640.00** acres, more or less, and this agreement shall include only the Bone Spring Formation underlying said lands and the **Bone Spring Formation (Red Hills: Bone Spring N; Pool Code 96434) as defined by the NMOCD, as further described on Exhibit "A** (hereinafter referred to as "communitized substances") producible from such formation.

2. Attached hereto, and made a part of this agreement for all purposes, is Exhibit "B" designating the operator of the communitized area and showing the acreage, percentage, and ownership of oil and gas interests in all lands within the communitized area, and the authorization, if any, for communitizing or pooling any patented or fee lands within the communitized area.
3. All matters of operation shall be governed by the operator under and pursuant to the terms and provisions of this agreement. A successor operator may be designated by the owners of the working interest in the communitized area and three (3) executed copies of a designation of successor operator shall be filed with the Authorized Officer and three (3) additional executed copies thereof shall be filed with the Commissioner.
4. Operator shall furnish the Secretary of the Interior, or his authorized representative, and the Commissioner, or his authorized representative, with a log and history of any well drilled on the communitized area, monthly reports of operations, statements of oil and gas sales and royalties, and such other reports as are deemed necessary to compute monthly the royalty due the United States and the State of New Mexico, as specified in the applicable oil and gas operating regulations.
5. The communitized area shall be developed and operated as an entirety with the understanding and agreement between the parties hereto that all communitized substances produced therefrom shall be allocated among the leaseholds comprising said area in the proportion that the acreage interest of leasehold bears to the entire acreage interest committed to this agreement.
6. The royalties payable on communitized substances allocated to the individual leases comprising the communitized area and the rentals provided for in said leases shall be determined and paid on the basis prescribed in each of the individual leases. Payments of rentals under the terms of leases subject to this agreement shall not be affected by this agreement except as provided for under the terms and provisions of said leases or as may herein be otherwise provided. Except as herein modified and changed, the oil and gas leases subject to this agreement shall remain in full force and effect as originally made and issued. It is agreed that for any federal lease bearing a sliding-or step-scale rate of royalty, such rate shall be determined separately as to production from each communitization agreement to which such lease may be committed, and separately as to any noncommunitized lease production, provided, however, as to leases where the rate of royalty for gas is based on total lease production per day such rate shall be determined by the sum of all communitized production allocated to such a lease plus any noncommunitized lease production.
7. There shall be no obligation on the lessees to offset any well or wells completed in the same formation as covered by this agreement on separate component tracts into which the communitized area is now or may hereafter be divided, nor shall any lessee be required to measure separately communitized substances by reason of the diverse ownership thereof, but the lessees hereto shall not be released from their obligation to protect said communitized area from drainage of communitized substances by a well or wells which may be drilled offsetting said area.

8. The commencement, completion, continued operation or production of a well or wells for communitized substances on the communitized area shall be construed and considered as the commencement, completion, continued operation or production on each and all of the lands within and comprising said communitized area, and operations or production pursuant to this agreement shall be deemed to be operations or production as to each lease committed hereto.
9. Production of communitized substances and disposal thereof shall be in conformity with allocation, allotments, and quotas made or fixed by any duly authorized person or regulatory body under applicable Federal or State statutes. This agreement shall be subject to all applicable Federal and State laws or executive orders, rules, and regulations, and no party hereto shall suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this agreement if such compliance is prevented by, or is such failure results from, compliance with any such laws, orders, rules or regulations.
10. The date of this agreement is **June 1, 2019** and it shall become effective as of this date or from the onset of production of communitized substances, whichever is earlier upon execution of the necessary parties, notwithstanding the date of execution, and upon approval by the Secretary of Interior, or his duly authorized representative, and by the Commissioner or his duly authorized representative, and shall remain in force and effect for a period of two (2) years and so long thereafter as communitized substances are produced or can be produced from the communitized area in paying quantities; provided, that the two-year term of this agreement will not in itself serve to extend the term of any Federal lease which would otherwise expire during said period; provided further that prior to production in paying quantities from the communitized area and upon fulfillment of all requirements of the Secretary of Interior, or his duly authorized representative, and all requirements of the Commissioner, with respect to any dry hole or abandoned well, this agreement may be terminated at any time by mutual agreement of the parties hereto. This agreement shall not terminate upon cessation of the capability of production if, within sixty (60) days thereafter, reworking or drilling operations on the communitized area are commenced and are thereafter conducted and prosecuted with reasonable diligence. As to lands owned by the State of New Mexico, written notice of intention to commence such operations shall be filed with the Commissioner within thirty (30) days after the cessation of such capability of production, and a report of the status of such operations shall be made by the Operator to the Commissioner every thirty (30) days, and the cessation of such operations for more than twenty (20) consecutive days shall be considered as an abandonment of such operations as to any lease from the State of New Mexico included in this agreement.
11. The covenants herein shall be construed to be covenants running with the land with respect to the communitized interests of the parties hereto and their successors in interest until this agreement terminates, and any grant, transfer, or conveyance of any such land or interest subject hereto, whether voluntary or not, shall be and hereby is conditioned upon the assumption of all obligations hereunder by the grantee, transferee, or other successor in interest, and as to Federal lands shall be subject to approval by the Secretary of the Interior, and as to State of New Mexico lands shall be subject to approval by the Commissioner.

- 12. It is agreed by the parties hereto that the Secretary of the Interior, or his duly authorized representative, shall have the right of supervision over all operations within the communitized area to the same extent and degree as provided in the oil and gas leases under which the United States of America is lessor, and in the applicable oil and gas operating regulations of the Department of the Interior. It is further agreed between the parties hereto that the Commissioner shall have the right of supervision over all operations to the same extent and degree as provided in the oil and gas leases under which the State of New Mexico is lessor and in the applicable oil and gas statutes and regulations of the State of New Mexico.
- 13. The agreement shall be binding upon the parties hereto and shall extend to and be binding upon their respective heirs, executors, administrators, successors and assigns.
- 14. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument, in writing, specifically referring hereto and shall be binding upon all parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document.
- 15. Nondiscrimination: In connection with the performance of work under this agreement, the Operator agrees to comply with all of the provisions of Section 202 (1) to (7) inclusive, of Executive Order 11246 (30 F. R. 12319), as amended which are hereby incorporated by reference in this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first written and have set opposite their respective names the date of execution.

WORKING INTEREST OWNERS AND/OR LESSEES OF RECORD

COG OPERATING LLC

Date: _____

By: _____

Sean Johnson
Attorney-In-Fact

OXY Y-1 COMPANY

Date: _____

By: _____

Name: _____

Title: _____

SHARBRO ENERGY LLC

Date: _____

By: _____

Name: _____

Title: _____

ACKNOWLEDGEMENTS

STATE OF TEXAS

§
§
§

COUNTY OF MIDLAND

This instrument was acknowledged before me on the _____ day of _____, 2019, by Sean Johnson, Attorney-In-Fact of **COG Operating LLC**, a Delaware Limited Liability Company, on behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

STATE OF _____

§
§
§

COUNTY OF _____

This instrument was acknowledged before me on the _____ day of _____, 2019, by _____, as _____ of **OXY Y-1 Company**, a _____, on behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

STATE OF _____

§
§
§

COUNTY OF _____

This instrument was acknowledged before me on the _____ day of _____, 2019, by _____, as _____ of **Sharbro Energy LLC**, a _____, on behalf of same.

Notary Public in and for the State of Texas
My Commission expires: _____

EXHIBIT A

To Communitization Agreement dated June 1, 2019
Plat of communitized area covering the W/2 of Section 35, T25S-R32E and the
W/2 of Section 2, T26S-R32E, NMPM, Lea County, New Mexico





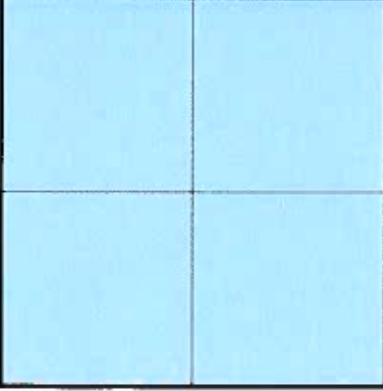

		Tract 1: W/2 (320.00 ac) USA NM- 108973 	Section 35
		Tract 2: NW/4 (160.00 ac) State of NM VB-0853 	Section 2
		Tract 3: SW/4 (160.00 ac) State of NM VB-0845 	

EXHIBIT B

To Communitization Agreement dated June 1, 2019, embracing the W/2 of Section 35, T25S-R32E and W/2 Section 2, T26S-R32E, NMPM, Lea County, New Mexico.

Operator of Communitized Area: **COG OPERATING LLC**

Tract No. 1

Lease Effective Date:	9/1/2002	
Lease Term:	10 years	
Recordation:	Not Recorded	
Lessor:	USA NM-108973	
Original Lessee:	The Allar Company	
Current Lessee:	COG Operating LLC	
Description of Lands Committed:	Insofar and only insofar as said lease covers: Township 25 South, Range 32 East Section 35: W/2 Lea County, New Mexico	
Number of Acres:	320.00	
Royalty Rate:	12½%	
WI Owner Names and Interests:	COG Operating	100.00%
ORRI Owners:	Of Record	

Tract No. 2

Lease Effective Date:	2/1/2006	
Lease Term:	5 years	
Recordation:	Not Recorded	
Lessor:	The State of New Mexico, acting by and through its Commissioner of Public Lands VB-0853	
Original Lessee:	Yates Petroleum Corporation	
Current Lessee:	COG Operating LLC	
Description of Lands Committed:	Insofar and only insofar as said lease covers: Township 26 South, Range 32 East Section 2: NW/4 Lea County, New Mexico	
Number of Acres:	160.00	
Royalty Rate:	3/16%	
WI Owner Names and Interests:	COG Operating LLC	70.140020%
	OXY Y-1 Company	25.965200%
	Sharbro Energy LLC	3.894780%
ORRI Owners:	Of Record	

EXHIBIT B CONTINUED

Tract No. 3		
Lease Effective Date:	2/1/2006	
Lease Term:	5 years	
Recordation:	Not Recorded	
Lessor:	The State of New Mexico, acting by and through its Commissioner of Public Lands VB-0845	
Original Lessee:	Yates Petroleum Corporation	
Current Lessee:	COG Operating LLC	
Description of Lands Committed:	Insofar and only insofar as said lease covers: Township 26 South, Range 32 East Section 2: SW/4 Lea County, New Mexico	
Number of Acres:	160.00	
Royalty Rate:	3/16%	
WI Owner Names and Interests:	COG Operating LLC	70.140020%
	OXY Y-1 Company	25.965200%
	Sharbro Energy LLC	3.894780%
ORRI Owners:	Of Record	

RECAPITULATION

Tract Number	Number of Acres Committed	Percentage of Interest in Communitized Area
No. 1	320.00	50.0000%
No. 2	160.00	25.0000%
No. 3	160.00	25.0000%
	640.00	100.0000%

Page 52 of 64

APPLICATION FOR POOL LEASE COMMINGLING AT CENTRAL TANK BATTERY

COG Operating LLC is requesting approval for pool lease commingling of production from the following wells:

Federal Lease #NMNM108973; 12.5% Royalty Rate; CA# (W/2 Sec. 35 in progress)

Location Sec 35, T23S-R32E

Pool; 97903 WC-025 G-08 S253235G; Lwr Bone Spring

Well Name;	API #	Est Oil BOPB	Est Oil Gravity	Est Gas MCFPD	Est Gas BTU
Harrier Fed Com 302H	30-025-45833	4000	42.0	1500	1288
Harrier Fed Com 304H	30-025-45835	4000	42.6	1500	1314

Federal Lease #NMNM108973; 12.5% Royalty Rate; CA# (W/2 Sec. 35 in progress)

Location Sec 35, T23S-R32E

Pool; 97838 Jennings; Upper Bone Spring Shale

Well Name;	API #	Est Oil BOPB	Est Oil Gravity	Est Gas MCFPD	Est Gas BTU
Harrier Fed Com 101H	30-025-45827	4000	44.1	1500	1253
Harrier Fed Com 102H	30-025-45828	4000	43.3	1500	1186
Harrier Fed Com 201H	30-025-45830	4000	48.8	1500	1154
Harrier Fed Com 202H	30-025-45831	4000	48.2	1500	1188
Harrier Fed Com 301H	30-025-45832	4000	44.6	1500	1247
Harrier Fed Com 303H	30-025-45834	4000	44.1	1500	1199
Harrier Fed Com 305H	30-025-45836	4000	43.4	1500	1237

Oil and Gas Metering:

the produced fluids from all wells flow into the production headers #1, #2, and #3 of the bulk and test facility.

At any point in time, 1 well from each header will be in test for a 2 day period before cycling to the next well, resulting in a maximum time one well to be between well tests is 6 days. . In all cases this exceeds the 3 well tests per month requirement.

Process and Flow Diagram:

The flow of production is shown in detail on the enclosed facility diagram. The pool commingling of this production is the most effective, economical means of producing the reserves and will not result in reduced royalty or improper measurement of production. The proposed pool commingling will reduce operating expenses as well as reduce the surface facility footprint and overall emissions.

COG Operating LLC understands the requested approval will not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.

All owners of interest are identical, with identical revenue distribution, therefore notification of owners is not required (see attached letter from COG Operating LLC Landman).

Respectfully,



Jeanette Barron

Production Technician II



Serial Register Page

Aug 04, 2020

01 12-22-1987;101STAT1330;30USC181 ET SE

Case Type: O&g lse comp pd -1987

Serial Number: NMNM 108973

Commodity: Oil & gas

Acres: 640.000

Disposition: Authorized

Lessee

Owner Name	Street	City	State	Zip	Net Acres	%Int
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND	TX	79701-4882	640.000	100.00

Operating Rights

Owner Name	Street	City	State	Zip	Net Acres	%Int
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND	TX	79701-4882	0.000	0.00
EOG RESOURCES INC	PO BOX 4362	HOUSTON	TX	77210-4362	0.000	0.00

Meridian: New Mex State: NM County: Lea
 Township: 25 S Range: 32 E Admin Agency
 Section: 35 ALL BUREAU OF LAND MGMT

Code	Action	Date	Remarks
387	Case established	7/16/2002	200207157
191	Sale held	7/17/2002	
267	Bid received	7/17/2002	\$16640.00;
392	Monies received	7/17/2002	\$16640.00;
237	Lease issued	8/14/2002	
974	Automated record verif	8/14/2002	GSB
496	Fund code	9/1/2002	05;145003
530	Rlty rate - 12 1/2%	9/1/2002	
868	Effective date	9/1/2002	
899	Trf of orr filed	2/6/2007	1
932	Trf oper rgts filed	4/3/2007	ALLAR CO/EG3 INC;1
933	Trf oper rgts approved	6/6/2007	EFF 05/01/07;
974	Automated record verif	6/6/2007	MV
140	Asgn filed	5/31/2011	ALLAR COM/VICTORY P;1
932	Trf oper rgts filed	5/31/2011	ALLAR COM/VPR OPERA;1
932	Trf oper rgts filed	5/31/2011	EG3/VPR OPERATING;1

<u>Code</u>	<u>Action</u>	<u>Date</u>	<u>Remarks</u>
139	Asgn approved	8/29/2011	EFF 06/01/11;
933	Trf oper rgts approved	8/29/2011	1 EFF 06/01/11;
933	Trf oper rgts approved	8/29/2011	2 EFF 06/01/11;
246	Lease committed to ca	6/21/2012	CA NM128803;
643	Production determination	10/27/2012	/1/
650	Held by prod - actual	10/27/2012	/1/
658	Memo of 1st prod-actual	10/27/2012	/1/NMNM128803;#1H
940	Name change recognized	3/20/2013	VICTORY PARK RES/VPR;
974	Automated record verif	9/10/2013	BTM
140	Asgn filed	12/20/2013	VPR (NM)/COG OPERAT;1
932	Trf oper rgts filed	12/20/2013	VPR OPERA/COG OPERA;1
139	Asgn approved	4/4/2014	EFF 01/01/14;
933	Trf oper rgts approved	4/4/2014	EFF 01/01/14;
974	Automated record verif	4/4/2014	DME
932	Trf oper rgts filed	10/16/2017	COG OPERA/EOG RESOU;1
933	Trf oper rgts approved	11/2/2017	EFF 11/01/17;
974	Automated record verif	11/2/2017	RCC
817	Merger recognized	1/1/2019	EOG A/EOG RESOURCE IN
817	Merger recognized	1/1/2019	EOG M/EOG RESOURCE IN
817	Merger recognized	1/1/2019	EOG Y/EOG RESOURCE IN

Remarks

NO STIPS ATTACHED
 06/06/07 PER MMS RENTAL PD FOR 02-06, DUE 09/01/07
 08/29/11 - PER MMS RENTAL PD THRU 09/01/11;
 04/04/2014 COG OPERATING BONDED NMB000215 SW
 11/02/2017 - OPERATING RIGHTS ADJUDICATED SEE WS;



Certificate of Analysis
 Number: 6030-20080095-001A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 13, 2020

Station Name:	Harrier Fed Com 101H	Sampled By:	C. Winters
Station Number:	Test Seperator #2	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/12/2020
Sample Point:	N/A	Sample Conditions:	109 psig, @ 85 °F Ambient: 85 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/12/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-001229
Sampling Company:	COG	Instrument:	70104251 (Inficon GC-MicroFusion)
Analyzed:	08/13/2020 13:46:49 by PGS	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00005	0.000		GPM TOTAL C2+ 6.491
Nitrogen	1.698	1.68015	1.997		GPM TOTAL C3+ 3.413
Methane	70.774	70.03802	47.674		GPM TOTAL iC5+ 0.647
Carbon Dioxide	5.686	5.62661	10.507		
Ethane	11.585	11.46499	14.628	3.078	
Propane	6.627	6.55852	12.271	1.814	
Iso-butane	0.890	0.88065	2.172	0.289	
n-Butane	2.116	2.09411	5.164	0.663	
Iso-pentane	0.535	0.52974	1.622	0.194	
n-Pentane	0.556	0.55042	1.685	0.200	
Hexanes Plus	0.583	0.57674	2.280	0.253	
	101.050	100.00000	100.000	6.491	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8168	3.2176
Calculated Molecular Weight	23.57	93.19
Compressibility Factor	0.9958	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1253	5141
Water Sat. Gas Base BTU	1232	5052
Ideal, Gross HV - Dry at 14.73 psia	1248.0	5141.1
Ideal, Gross HV - Wet	1226.3	5051.6

Comments: H2S Field Content 0.5 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
Number: 6030-20080143-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

David Borges
Concho Oil & Gs
2208 W Main St
Artesia, NM 88210

Aug. 19, 2020

Station Name:	Harrier Fed Com #102H	Sampled By:	C. Winters
Station Number:	Test Separator #1	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/14/2020
Sample Point:	N/A	Sample Conditions:	93 psig, @ 89 °F Ambient: 82 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/14/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-001235
Sampling Company:	COG	Instrument:	70104124 (Inficon GC-MicroFusion)
Analyzed:	08/19/2020 14:17:22 by PGS	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00015	0.000		GPM TOTAL C2+ 5.802
Nitrogen	1.741	1.73777	2.044		GPM TOTAL C3+ 3.030
Methane	69.353	69.23196	46.635		GPM TOTAL iC5+ 0.568
Carbon Dioxide	8.773	8.75724	16.183		
Ethane	10.343	10.32521	13.037	2.772	
Propane	5.888	5.87806	10.884	1.626	
Iso-butane	0.790	0.78853	1.924	0.259	
n-Butane	1.826	1.82322	4.450	0.577	
Iso-pentane	0.493	0.49224	1.491	0.181	
n-Pentane	0.485	0.48376	1.466	0.176	
Hexanes Plus	0.483	0.48186	1.886	0.211	
	<u>100.175</u>	<u>100.00000</u>	<u>100.000</u>	<u>5.802</u>	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8253	3.2176
Calculated Molecular Weight	23.82	93.19
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1186	5141
Water Sat. Gas Base BTU	1166	5052
Ideal, Gross HV - Dry at 14.73 psia	1181.5	5141.1
Ideal, Gross HV - Wet	1161.0	5051.6

Comments: H2S Field Content 1.5 ppm



Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
 Number: 6030-20080112-004A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 17, 2020

Station Name:	Harrier Fed Com 201H	Sampled By:	C. Winters
Station Number:	Test Sperator #2	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/13/2020
Sample Point:	N/A	Sample Conditions:	151 psig, @ 91 °F Ambient: 88 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/13/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	5030-01102
Sampling Company:	COG	Instrument:	70104124 (Inficon GC-MicroFusion)
Analyzed:	08/17/2020 10:34:56 by ADH	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00015	0.000		GPM TOTAL C2+ 5.274
Nitrogen	1.859	1.85749	2.252		GPM TOTAL C3+ 2.583
Methane	71.180	71.10723	49.380		GPM TOTAL iC5+ 0.403
Carbon Dioxide	8.437	8.42864	16.057		
Ethane	10.037	10.02660	13.050	2.691	
Propane	5.342	5.33602	10.185	1.475	
Iso-butane	0.691	0.69019	1.736	0.227	
n-Butane	1.514	1.51245	3.805	0.478	
Iso-pentane	0.376	0.37541	1.172	0.138	
n-Pentane	0.355	0.35414	1.106	0.129	
Hexanes Plus	0.312	0.31168	1.257	0.136	
	100.103	100.00000	100.000	5.274	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8003	3.2176
Calculated Molecular Weight	23.10	93.19
Compressibility Factor	0.9963	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1154	5141
Water Sat. Gas Base BTU	1134	5052
Ideal, Gross HV - Dry at 14.73 psia	1149.5	5141.1
Ideal, Gross HV - Wet	1129.5	5051.6

Comments: H2S Field Content 1.5 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
 Number: 6030-20080095-003A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 13, 2020

Station Name:	Harrier Fed Com 202H	Sampled By:	C. Winters
Station Number:	Test Sperator #1	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/12/2020
Sample Point:	N/A	Sample Conditions:	111 psig, @ 86 °F Ambient: 85 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/12/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-001225
Sampling Company:	COG	Instrument:	70104124 (Inficon GC-MicroFusion)
Analyzed:	08/13/2020 13:46:51 by KNF	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00015	0.000		GPM TOTAL C2+
Nitrogen	1.745	1.74437	2.054		GPM TOTAL C3+
Methane	69.129	69.12004	46.602		GPM TOTAL iC5+
Carbon Dioxide	8.644	8.64285	15.986		
Ethane	10.530	10.52821	13.305	2.826	
Propane	5.959	5.95821	11.042	1.648	
Iso-butane	0.802	0.80209	1.959	0.263	
n-Butane	1.808	1.80776	4.416	0.572	
Iso-pentane	0.478	0.47824	1.450	0.176	
n-Pentane	0.463	0.46284	1.403	0.168	
Hexanes Plus	0.455	0.45524	1.783	0.199	
	100.013	100.00000	100.000	5.852	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8245	3.2176
Calculated Molecular Weight	23.79	93.19
Compressibility Factor	0.9960	

GPA 2172 Calculation:
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1188	5141
Water Sat. Gas Base BTU	1168	5052
Ideal, Gross HV - Dry at 14.73 psia	1183.2	5141.1
Ideal, Gross HV - Wet	1162.6	5051.6

Comments: H2S Field Content 1.5 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
 Number: 6030-20080095-002A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 13, 2020

Station Name:	Harrier Fed Com 301H	Sampled By:	C. Winters
Station Number:	Test Seperator #3	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/12/2020
Sample Point:	N/A	Sample Conditions:	110 psig, @ 91 °F Ambient: 85 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/12/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	5030-01251
Sampling Company:	COG	Instrument:	70104124 (Inficon GC-MicroFusion)
Analyzed:	08/13/2020 14:02:32 by PGS	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00002	0.000		GPM TOTAL C2+ 6.479
Nitrogen	1.642	1.63884	1.939		GPM TOTAL C3+ 3.396
Methane	69.760	69.60862	47.166		GPM TOTAL iC5+ 0.629
Carbon Dioxide	6.140	6.12669	11.389		
Ethane	11.507	11.48215	14.583	3.083	
Propane	6.568	6.55346	12.206	1.813	
Iso-butane	0.898	0.89645	2.201	0.295	
n-Butane	2.088	2.08357	5.115	0.659	
Iso-pentane	0.526	0.52466	1.599	0.193	
n-Pentane	0.532	0.53045	1.617	0.193	
Hexanes Plus	0.556	0.55509	2.185	0.243	
	100.217	100.00000	100.000	6.479	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8206	3.2176
Calculated Molecular Weight	23.68	93.19
Compressibility Factor	0.9958	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1247	5141
Water Sat. Gas Base BTU	1226	5052
Ideal, Gross HV - Dry at 14.73 psia	1241.9	5141.1
Ideal, Gross HV - Wet	1220.2	5051.6

Comments: H2S Field Content 0.2 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
 Number: 6030-20080112-003A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 17, 2020

Station Name:	Harrier Fed Com 302H	Sampled By:	C. Winters
Station Number:	Test Seperator #3	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/13/2020
Sample Point:	N/A	Sample Conditions:	142 psig, @ 102 °F Ambient: 88 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/13/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-002295
Sampling Company:	COG	Instrument:	70104251 (Inficon GC-MicroFusion)
Analyzed:	08/17/2020 10:25:46 by ADH	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Nitrogen	1.686	1.66900	2.047		GPM TOTAL C2+
Methane	72.777	72.04352	50.610		GPM TOTAL C3+
Carbon Dioxide	2.734	2.70673	5.216		GPM TOTAL IC5+
Ethane	12.591	12.46357	16.410	3.346	
Propane	6.675	6.60771	12.758	1.827	
Iso-butane	0.855	0.84638	2.154	0.278	
n-Butane	2.115	2.09328	5.327	0.662	
Iso-pentane	0.487	0.48249	1.524	0.177	
n-Pentane	0.530	0.52416	1.656	0.191	
Hexanes Plus	0.569	0.56316	2.298	0.247	
	<u>101.019</u>	<u>100.00000</u>	<u>100.000</u>	<u>6.728</u>	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7915	3.2176
Calculated Molecular Weight	22.84	93.19
Compressibility Factor	0.9959	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1288	5141
Water Sat. Gas Base BTU	1266	5052
Ideal, Gross HV - Dry at 14.73 psia	1282.4	5141.1
Ideal, Gross HV - Wet	1260.1	5051.6

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis
 Number: 6030-20080143-002A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 19, 2020

Station Name:	Haarrier Fed Com #303H	Sampled By:	C. Winters
Station Number:	Test Seperator #2	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/14/2020
Sample Point:	N/A	Sample Conditions:	90 psig, @ 88 °F Ambient: 82 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/14/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-001201
Sampling Company:	COG	Instrument:	70104251 (Inficon GC-MicroFusion)
Analyzed:	08/19/2020 14:17:23 by PGS	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00015	0.000		GPM TOTAL C2+
Nitrogen	1.748	1.72725	2.006		GPM TOTAL C3+
Methane	68.994	68.16685	45.325		GPM TOTAL iC5+
Carbon Dioxide	9.026	8.91823	16.268		
Ethane	10.784	10.65437	13.279	2.860	
Propane	6.298	6.22223	11.372	1.721	
Iso-butane	0.841	0.83053	2.001	0.273	
n-Butane	1.942	1.91833	4.621	0.607	
Iso-pentane	0.530	0.52385	1.567	0.192	
n-Pentane	0.521	0.51476	1.539	0.187	
Hexanes Plus	0.530	0.52345	2.022	0.229	
	101.214	100.00000	100.000	6.069	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8362	3.2176
Calculated Molecular Weight	24.13	93.19
Compressibility Factor	0.9959	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1199	5141
Water Sat. Gas Base BTU	1179	5052
Ideal, Gross HV - Dry at 14.73 psia	1194.4	5141.1
Ideal, Gross HV - Wet	1173.6	5051.6

Comments: H2S Field Content 1.5 ppm

Hydrocarbon Laboratory Manager

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Certificate of Analysis
 Number: 6030-20080112-002A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

David Borges
 Concho Oil & Gs
 2208 W Main St
 Artesia, NM 88210

Aug. 17, 2020

Station Name:	Harrier Fed Com 305H	Sampled By:	C. Winters
Station Number:	Test Seperator #1	Sample Of:	Gas Spot
Station Location:	COG	Sample Date:	08/13/2020
Sample Point:	N/A	Sample Conditions:	114 psig, @ 91 °F Ambient: 88 °F
Type of Sample:	Spot-Cylinder	Effective Date:	08/13/2020
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-001246
Sampling Company:	COG	Instrument:	70104124 (Inficon GC-MicroFusion)
Analyzed:	08/17/2020 10:25:45 by ADH	Last Inst. Cal.:	08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.00005	0.000		GPM TOTAL C2+ 6.291
Nitrogen	1.723	1.71789	2.061		GPM TOTAL C3+ 3.223
Methane	70.655	70.45780	48.407		GPM TOTAL iC5+ 0.567
Carbon Dioxide	5.792	5.77602	10.886		
Ethane	11.460	11.42838	14.717	3.068	
Propane	6.378	6.36038	12.011	1.759	
Iso-butane	0.842	0.83995	2.091	0.276	
n-Butane	1.969	1.96370	4.888	0.621	
Iso-pentane	0.477	0.47587	1.470	0.175	
n-Pentane	0.492	0.49033	1.515	0.178	
Hexanes Plus	0.491	0.48963	1.954	0.214	
	<u>100.279</u>	<u>100.00000</u>	<u>100.000</u>	<u>6.291</u>	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8092	3.2176
Calculated Molecular Weight	23.35	93.19
Compressibility Factor	0.9959	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1237	5141
Water Sat. Gas Base BTU	1216	5052
Ideal, Gross HV - Dry at 14.73 psia	1231.9	5141.1
Ideal, Gross HV - Wet	1210.5	5051.6

Comments: H2S Field Content 0.5 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis

Number: 6030-20080159-003A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

David Borges
Concho Oil & Gs
2208 W Main St
Artesia, NM 88210

Aug. 21, 2020

Station Name: Harrier Fed Com CTB
Station Number: Fed Com 304H
Station Location: COG
Sample Point: Test Scrubber
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge
Sampling Company: COG
Analyzed: 08/21/2020 09:45:28 by PGS

Sampled By: John Patno
Sample Of: Gas Spot
Sample Date: 08/19/2020 09:20
Sample Conditions: 84.1 psig, @ 83.8 °F Ambient: 81 °F
Effective Date: 08/19/2020 09:20
Method: GPA-2261M
Cylinder No: 5030-04184
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 08/10/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Nitrogen	1.739	1.72280	2.065		GPM TOTAL C2+	7.085
Methane	71.571	70.89659	48.672		GPM TOTAL C3+	3.745
Carbon Dioxide	2.791	2.76508	5.208		GPM TOTAL iC5+	0.788
Ethane	12.556	12.43753	16.004	3.340		
Propane	6.951	6.88507	12.992	1.905		
Iso-butane	0.927	0.91866	2.285	0.302		
n-Butane	2.393	2.37014	5.895	0.750		
Iso-pentane	0.586	0.58048	1.792	0.213		
n-Pentane	0.663	0.65645	2.027	0.239		
Hexanes Plus	0.775	0.76720	3.060	0.336		
	100.952	100.00000	100.000	7.085		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8100	3.2176
Calculated Molecular Weight	23.37	93.19
Compressibility Factor	0.9957	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1314	5141
Water Sat. Gas Base BTU	1292	5052
Ideal, Gross HV - Dry at 14.73 psia	1308.5	5141.1
Ideal, Gross HV - Wet	1285.7	5051.6

Comments: CO2 4.5%

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.