

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMLC029405B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
 Oil Well Gas Well Other

8. Well Name and No.
RUBY FEDERAL 08 ✓

2. Name of Operator
CONOCOPHILLIPS COMPANY ✓ Contact: RHONDA ROGERS
E-Mail: rogers@conocophillips.com

9. API Well No.
30-025-40521 ✓

3a. Address
P. O. BOX 51810
MIDLAND, TX 79710

3b. Phone No. (include area code)
Ph: 432-688-9174

10. Field and Pool, or Exploratory
MALJAMAR;GB-SA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

11. County or Parish, and State

Sec 18 T17S R32E Mer NMP SESE 1000FSL 620FEL ✓

LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

ConocoPhillips would like to re-completing the Ruby Federal 8 from the Yeso to the Grayburg-San Andres to determine the commercial potential of future downhole commingling of the Grayburg-San Andres in the existing & future Yeso wells.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Attached is the procedure to recompleate & a C-102 for the Maljamar; GB-SA.

always submit current and proposed well bore diagrams.

**SUBJECT TO LIKE
APPROVAL BY STATE**

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

Electronic Submission #210506 verified by the BLM Well Information System
For CONOCOPHILLIPS COMPANY, sent to the Hobbs
Committed to AFMSS for processing by KURT SIMMONS on 06/13/2013 ()

Name (Printed/Typed) RHONDA ROGERS

Title STAFF REGULATORY TECHNICIAN

Signature (Electronic Submission)

Date 06/12/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

APPROVED
JUL 3 2013
Jennifer Mason
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

JUL 18 2013



Ruby Federal-08
 API # 30-025-40507
Lea County, New Mexico

The subject workover consists of re-completing the Ruby Federal-8 from the Yeso to the Grayburg-San Andres to determine the commercial potential of future downhole commingling of the Grayburg-San Andres in the existing & future Yeso wells.

Gross Interval
3503-3721
3818-3914
4053-4086
4780-4866
5000-5235

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WELL CATEGORY, BOP CLASS AND EXCEPTIONS

Well Category: **One**
 BOP Class: **One (hydraulic recommended)**

ROE:

MCFPD	H2S: ppm	ROE: feet	
		100 ppm	500 ppm
105	1600	33	15

PROCEDURE

NOTE: Prior to MI & RU of service unit, obtain well test from current Yeso completion.

1. MI & RU service unit. The following is a well file source summary of current well configuration (last well service: 06.2012):

Ruby Federal-08 (30-025-40507)	Depth (RKB): ft.		
1000 FSL & 620 FEL, 18-17S-32E	(KB -GL: 14 ft.)		
Elev.: 3994 KB; 3980 GL	top	btm	
8-5/8", 24#, J-55	surface	738	07.12.12: Cmt w/ 510 sx. Circ 198 sx (60 bbl) cmt to surface
5-1/2", 17#, L-80	surface	7211	07.11.12: Cmt w/ 1250 sx. Circ 108 sx (50 bbl) cmt to surface
Completion Intervals (Gross):			
Paddock	5375	5490	
Mid Blinebry	5880	5979	
Lwr Blinebry	6109	6229	
Lwr Blinebry	6550	6570	
PBD	7165		
TD		7221	07.11.12: Driller TD 7221; (07.11.12: Logger TD 7204)

2. POOH & LD rods & pump. ND well. NU BOP. POOH & stand-back tbg.
3. RIH w/ tbg & bit & scraper (5-1/2", 17#) to 5350. POOH.
4. RIH w/ tbg & composite BP. Set BP @ 5345 (uppermost Paddock perforation: 5375)

Circ well w/ fresh water. (5-1/2", 17# well capacity: 124 bbl; 112 bbl w/ 2-7/8" tbg)

Close pipe-rams & test BP @ 4800# surface prs (equivalent to 7106# @ BP; 1.3 psi gradient).

POOH w/ tbg.

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5. RU perforating services.

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NU lubricator w/ pack-off. Test @ 500#.

Perforate following intervals (3-3/8" SLB Power Jet HMX, 22.7 gm., EHD: 0.36"):

top	btm	Feet	SPF	Shots
5124	5135	11	1	11
5154	5164	10	1	10
5173	5183	10	1	10
5201	5211	10	1	10
5230	5243	13	1	13
5247	5252	5	1	5
5266	5273	7	1	7
		66		66

RD perforating services.

6. Breakdown perforations:

- a. RIH w/ 2-7/8" tbg w/ PKR to lowermost perforation @ 5273.
- b. Spot 1000 gal 15% NE Fe HCl (23.8 bbl acid followed by 24.0 bbl water)
- c. Pull 20 stands. Set PKR @ approximately 4000 (acid column: 4210-5235)
- d. Displace acid w/ 35 bbl water
(11 bbl over-flush; equivalent to approximately 3 x AIR: 3 BPM @ 3000#)
- e. Record ISIP, SITP(5 min), SITP(10 min) & SITP(15 min)
- f. POOH & LD tbg
- g. ND BOP
- h. NU frac stack
 - btm: 7-1/16" 5K psi manual frac valve
 - 7-1/16" 5K psi hydraulic frac valve
 - top: 5K psi "goathead" w/ full-bore opening
 - 2: 4" side connections

RD well service

7. Prior to frac date, spot 14 clean 500 bbl frac tanks.

Load tanks w/ fresh water. Water to be biocide-treated by frac-service provider.

Estimated water requirements:

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Stage	Water: bbl		
	Pre-Frac	Frac	Total
1	185	1535	1720
2	180	1526	1706
3	137		137
4	130		130
5	150	1520	1670
	782	4581	5363

The well work will require the following acid volumes:

Stage	15% NE Fe HCl: gal		
	Spot	Job	Total
1		2772	2772
2	1000	2688	3688
3	1000	5040	6040
4	1000	5040	6040
5	1000	2520	3520
	4000	18060	22060

Stage-1: Lwr San Andres (Lwr Z10)

8. RU HES. Set treating line pop-off: 4800#.
Set pump trips: 4500#
Test surface lines: 5500#.

Acidize 5124-5273 (66 perforations) w/ 66 bbl (2772 gal) 15% NE Fe HCl w/ 80 (1.1 sg) ball sealers:

- Pump 20 bbl freshwater. Obtain pump-in rate: 15 BPM
- Pump 13 bbl 15% HCl.
- Pump 40 bbl 15% HCl. Drop 80 bs evenly spaced (2 bs/bbl)
- Pump 13 bbl 15% HCl
- Pump 165 bbl fresh water (overflush w/ 45 bbl, equivalent to 3 x BPM treating rate)

(csg capacity: 119.1 bbl top perf; 122.5 bbl btm perf)

Anticipated treating rate: 15 BPM @ 2400#

If ball-out occurs (3400#: 1000# over treating prs), SD. Surge perms 3 times.

Frac 5124-5273 down 5-1/2", 17#, L-80 csg w/

60,500 gal 25# x-link w/ 80,000# 16/30 sand & 20,000# resin-coated 16/30.

Mark flush @ 2#. Flush w/

1000 gal (23.8 bbl) 15% NE Fe HCl (acid column: 4050-5074)

3954 gal (94.1 bbl) linear gel (water column: surf -4050)

Capacity to uppermost perforation (stage-1): 5003 gal; 119.1 bbl

Capacity to lowermost perforation (stage-2): 4954 gal; 118.0 bbl

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Anticipated treating rate: 30 BPM @ 3100#:

Stage-2: Lwr San Andres (Upr Z10)

- 9. RU wireline services. NU lubricator w/ pack-off. Test @ 500# over SICP (note & record SICP).
 - a. RIH w/ composite BP (5-1/2", 17#)
 - b. Set BP @ 5100.
 - c. Test BP @ 4800# surface prs (7008# @ BP; gradient: 1.4 psi/ft.)
 - d. Perforate following intervals (3-3/8" SLB Power Jet HMX, 22.7 gm., EHD: 0.36"):

top	btm	Feet	SPF	Shots
4782	4791	9	1	9
4833	4841	8	1	8
4884	4895	11	1	11
4931	4941	10	1	10
4966	4973	7	1	7
5016	5026	10	1	10
5065	5074	9	1	9
		64		64

- e. RD wireline services

- 10. RU HES. Set treating line pop-off: 4800#.
- Set pump trips: 4500#
- Test surface lines: 5500#.

Acidize 4782-5074 (64 perforations) w/ 64 bbl (2688 gal) 15% NE Fe HCl w/ 80(1.1 sg) ball sealers:

- Pump 20 bbl freshwater. Breakdown w/ acid on spot & obtain pump-in rate: 15 BPM.
- Pump 12 bbl 15% HCl.
- Pump 40 bbl 15% HCl. Drop 80 bs evenly spaced (2 bs/bbl)
- Pump 12 bbl 15% HCl
- Pump 160 bbl fresh water (overflush w/ 45 bbl, equivalent to 3 x BPM treating rate)

(csg capacity: 111.1 bbl top perf; 117.9 bbl btm perf)

Anticipated treating rate: 15 BPM @ 2300#

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If ball-out occurs (3300#: 1000# over treating prs), SD. Surge perms 3 times.

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Frac 4782-5074 down 5-1/2", 17#, L-80 csg w/

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60,500 gal 25# x-link w/ 80,000# 16/30 sand & 20,000# resin-coated 16/30.

Mark flush @ 2#. Flush w/

589 gal (14.0 bbl) linear gel (water column: 4117-4720)

1000 gal (23.8 bbl) 15% NE Fe HCl (acid column: 3092-4117)

3020 gal (71.9 bbl) linear gel (water column: surf -3092)

Capacity to uppermost perforation (stage-2): 4669 gal; 111.1 bbl

Capacity to lowermost perforation (stage-3): 4020 gal; 95.7 bbl

Anticipated treating rate: 30 BPM @ 3000#:

Stage-3: Lwr San Andres (Z9)

11. RU wireline services. NU lubricator w/ pack-off. Test @ 500# over SICP (note & record SICP).

- a. RIH w/ composite BP (5-1/2", 17#).
- b. Set BP @ 4200.
- c. Test BP @ 4800# surface prs (6618# @ BP; gradient: 1.6 psi/ft.)
- d. Perforate following intervals (3-3/8" SLB Power Jet HMX, 22.7 gm., EHD: 0.36"):

top	btm	Feet	SPF	Shots
4085	4099	14	3	42
4110	4117	7	3	21
		21		63

e. RD wireline services

12. Acidize 4085-4117 (63 perforations) w/ 120 bbl (5040 gal) 15% NE Fe HCl w/ 80 (1.1 sg) ball sealers:

Pump 20 bbl fresh water. Breakdown w/ acid on spot & obtain pump-in rate: 15 BPM.

Pump 40 bbl 15% HCl.

Pump 40 bbl 15% HCl. Drop 80 bs evenly spaced (2 bs/ bbl)

Pump 40 bbl 15% HCl.

Flush w/

2064 gal (49.2 bbl) fresh water (water column: 3938-4117; 45 bbl overflush)

1000 gal (23.8 bbl) 15% HCl (acid column: 2914-3938)

2845 gal (67.7 bbl) fresh water (water column: surf-2914)

Capacity to uppermost perforation (stage-3): 3989 gal; 95.0 bbl

Capacity to lowermost perforation (stage-3): 4020 gal; 95.7 bbl

Capacity to lowermost perforation (stage-4): 3845 gal; 91.5 bbl

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Anticipated treating rate: 15 BPM @ 2300#

If ball-out occurs (3300#: 1000# over treating prs), SD. Surge perms 3 times.

Stage-4: Upr San Andres (Z7)

13. RU wireline services. NU lubricator w/ pack-off. Test @ 500# over SICP (note & record SICP).

- a. RIH w/ composite BP (5-1/2", 17#)
- b. Set BP @ 4000
- c. Test BP @ 4800# surface prs (6532# @ BP; gradient: 1.6 psi/ft.)
- d. Perforate following intervals(3-3/8" SLB Power Jet HMX, 22.7 gm., EHD: 0.36"):

top	btm	Feet	SPF	Shots
3835	3846	11	3	33
3915	3918	3	3	9
3927	3938	11	3	33
		25		75

e. RD wireline services

14. Acidize 3835-3938 (75 perforations) w/ 120 bbl (5040 gal) 15% NE Fe HCl w/ 90 (1.1 sg) ball sealers:

- Pump 20 bbl fresh water. Breakdown w/ acid on spot & obtain pump-in rate: 15 BPM.
- Pump 35 bbl 15% HCl.
- Pump 45 bbl 15% HCl. Drop 90 bs evenly spaced (2 bs/ bbl)
- Pump 40 bbl 15% HCl.

Flush w/

- 2078 gal (49.5 bbl) fresh water (water column: 3721-3914; 45 bbl overflush)
- 1000 gal (23.8 bbl) 15% HCl (acid column: 2595-3619)
- 2533 gal (60.3 bbl) fresh water (water column: surf-2595)

- Capacity to uppermost perforation (stage-4): 3744 gal; 89.1 bbl
- Capacity to lowermost perforation (stage-4): 3845 gal; 91.5 bbl
- Capacity to lowermost perforation (stage-5): 3533 gal; 84.1 bbl

Anticipated treating rate: 15 BPM @ 2150#

If ball-out occurs (3150#: 1000# over treating prs), SD. Surge perms 3 times.

Stage-5: Grayburg (Z4, Z5 & Z6)

15. RU wireline services. NU lubricator w/ pack-off. Test @ 500# over SICP (note & record SICP).

- a. RIH w/ composite BP (5-1/2", 17#)
- b. Set BP @ 3700
- c. Test BP @ 4800# surface prs (6402# @ BP; gradient: 1.7 psi/ft.)
- d. Perforate following intervals (3-3/8" SLB Power Jet HMX, 22.7 gm., EHD: 0.36"):

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top	btm	Feet	SPF	Shots
3498	3505	7	2	14
3514	3525	11	2	22
3588	3592	4	2	8
3602	3606	4	2	8
3615	3619	4	2	8
		30		60

e. RD wireline services

16. RU HES. Set treating line pop-off: 4800#.
Set pump trips: 4500#
Test surface lines: 5500#.

Acidize 3498-3619 (60 perforations) w/ 60 bbl (2520 gal) 15% NE Fe HCl w/ 72(1.1 sg) ball sealers:

Pump 20 bbl fresh water. Breakdown w/ acid on spot & obtain pump-in rate: 15 BPM.
Pump 12 bbl 15% HCl
Pump 36 bbl 15% HCl. Drop 72 bs evenly spaced (2 bs/bbl)
Pump 12 bbl 15% HCl.
Pump 130 bbl fresh water (overflush w/ 45 bbl, equivalent to 3 x BPM treating rate)

(csg capacity: 81.3 bbl to top perf; 84.1 bbl to btm perf)

Anticipated treating rate: 15 BPM @ 2100#

If ball-out occurs (3100# : 1000# over treating prs), SD. Surge perfs 3 times.

Frac 3498-3619 down 5-1/2", 17#, L-80 csg w/

60,500 gal 25# x-link w/ 80,000# 16/30 sand & 20,000# resin-coated 16/30.

Mark flush @ 2#. Flush w/ 3360 gal (80.0 bbl) linear gel

Capacity to uppermost perforation: 3415 gal; 81.3 bbl

Anticipated treating rate: 30 BPM @ 2200#.

RD & release HES. SION.

17. Open well and flow back until dead.

18. RU well service unit. ND frac stack. NU BOP.

19. Pick-up & RIH w/ 4-3/4" bit, 6: 3-1/2" DC & 2-7/8", 6.5#, J-55 tbg.

Drill out composite BP: 3700, 4000, 4200 & 5100

Circ well 2 hrs prior to POOH.

POOH w/ tbg. LD DC & bit.

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NOTE:

Composite @ 5325 will NOT be removed at this time in order to production test the Grayburg-San Andres

20. Downhole equip as per attached.

	Depth (RKB): ft	
	(KB - GL: 14 ft.)	
<u>Tubing:</u>	<u>top</u>	<u>btm</u>
2-7/8", 6.5#, J-55	surface	3400
TAC (2-7/8" x 5-1/2", 17#)	3450	3453
2-7/8", 6.5#, J-55	3453	5300
SN	5300	5300
2-7/8" Perforated Sub	5300	5310
2-7/8", 6.5#, J-55 Tbg Sub	5310	5320
Blanking Plug	5320	5320
2-7/8" Perforated Sub	5320	5325
2-7/8", 6.5#, J-55 bull-plugged Tbg Sub	5325	5327
w/ prs memory gauge		
Note:		
upr perf 3498		
btm perf 5273		
Composite BP @ 5345		

<u>Rods:</u>	<u>Ftg</u>
7/8" Norris 97	2383
3/4" Norris 97	2475
1-1/2" Grade C SB	400
Pump: 2" x 24' Insert	5300

21. Surface equip w/ existing 912-365-168 unit. Operate at current 8.8 SPM w/ 168" stroke.

Estimated RodStar-based production capacity: 608 BPD @ 95% pump efficiency

Loading: %

Gearbox	100
Structure	67
Rods	84
ROL	83
MPRL/PPRL	17

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22. Subject to revision, place well on test:

- a. Leave well SD approximately 5-10 days to obtain initial bottom-hole shut-in prs
- b. Place on production approximately for a 30-60-day period to obtain bottom-hole producing prs.
- c. SI well for approximately 5-10 days to obtain final bottom-hole shut-in prs.
- d. POOH w/ rods & pump. POOH w/ tbg & retrieve prs memory gauge

NOTE:

Following test period, and subject to BLM COA, well may be downhole commingled w/ existing Yeso completion. DHC production will not occur until the DHC C-107-A has been approved. A courtesy copy of the C-107-A will be submitted to the BLM when filed.

	Internal Yield (Burst): psi		Internal Diameter: in.		Capacity	
	100%	80%	Nom.	Drift	gal/ft	bbbl/ft
2-7/8", 6.5#, J-55	7260	5808	2.441	2.347	0.2431	0.00579
5-1/2", 17#, L-80	7740	6192	4.892	4.767	0.9764	0.02324
2-7/8" x 5-1/2", 17#					0.6392	0.0152

Downhole Commingle:

23. MI & RU well service unit.

24. POOH w/ rods & pump. ND well. NU BOP. POOH w/tbg.

25. RU reverse unit

26. RIH w/ tbg, 6: 3-1/2" DC & 4-3/4" bit. Drill-out composite BP @ 5300.

RIH to PBD. Circulate 2 hrs.

POOH w/ tbg. LD DC & bit.

27. Downhole equip w/ ESP.

see COA

Ruby Federal 8
30-025-40521
Conoco Phillips Company
July 3, 2013
Conditions of Approval

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Notify BLM at 575-361-2822 a minimum of 24 hours prior to commencing work.

Work to be completed by October 2, 2013.

1. **Must conduct a casing integrity test before perforating and fracturing. Submit results to BLM. The CIT is to be performed on the production casing to max treating pressure. Notify BLM if test fails.**
2. Before casing or a liner is added or replaced, prior BLM approval of the design is required. Use notice of intent Form 3160-5.
3. Surface disturbance beyond the originally approved pad must have prior approval.
4. Closed loop system required.
5. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
6. Operator to have H2S monitoring equipment on location.
7. A minimum of a 2000 (2M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
8. **No commingling can be done until operator has approval from both the BLM and the State.**

9. Subsequent sundry required detailing work done and completion report for the new formation. Operator to include new well plat and well bore schematic of current well condition when work is complete.

JAM 070313

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