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- Drill 17¹₂" hole to 40'. Set 40' of 13 3/8" conductor pipe and cement to surface with Redi-mix.
- 2. Drill 12½" hole to 1350'. Run and set 1350' of 9 5/9" 36# J-55 ST&C casing. Cement with 500 Sx. of Halco Light + additives, tail in with 500 Sx. of Class "C" cement + ½# Flocele/ Sx. + 2% CaCl, circulate cement to surface.
- 3. Drill 8 3/4" hole to 7750'. Run and set 7750' of 5½" 17# J-55 LT&C casing. Cement with 1100 Sx of Class "C" Halco Light + additives, tail in with 500 Sx. of Class "H" Premium Plus cement + additives, estimate top of cement 1150'.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to d deepen directionally, give pertinent data on subsurface locations and measure	deepen, give data on present productive zone and pr d and true vertical depths. Give blowout preventer pr	CHED, productive zone. If proposal is to drill or ogram, if any.
SIGNED TOPT POULS	Agent	DATE 04/11/01
(This space for Federal or State office use)	APPROVAL DATE	

Application approval 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. CONDITIONS OF APPROVAL IF ANY:

APPROVED BY	/S/ JOE G. LARA	- HIPS	2014 A 7 200
	*See	Instructions On Reverse Side APPF	OVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false. fictitions or fraudulent externance or constantiations or to any mother within its invitation.

DISTRICT I

P.O. Box 1980, Hobbs, NM 86241-1980

State of New Mexico

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Energy, Minerals and Natural Resources Department

DISTRICT II P.O. Drawer DD, Artonia, NM 88211-0719

DISTRICT III 1000 Rio Brazos Rd., Astec, NM 87410

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

DISTRICT IV

WELL LOCATION AND ACREAGE DEDICATION PLAT

Submit to Appropriate District Office

Revised February 10, 1994

State Lease - 4 Copies

Fee Lease - 3 Copies

Form C-102

□ AMENDED REPORT Pool Code API Number Pool Name WILDCAT-MORROW Property Code Property Name Well Number SARGENT CANYON "31" FEDERAL 1 OGRID No. **Operator** Name Elevation KUKUI OPERATING COMPANY 149678 4588' Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	31	19-S	21-E		860	SOUTH	1980	EAST	EDDY

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
Dedicated Acres	Joint o	r Infill Co	onsolidation (Code Or	der No.			······	L
320									

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

LOT 1			OPERATOR CERTIFICATION
			I hereby certify the the information
			contained herein is true and complete to the best of my knowledge and belief.
	67891011		
	545678910111213		Cost Jours
43.16 AC	T T		Signature
LOT 2	<u></u>	<u>6</u>	Joe T. Janica
031	RECEIVED OCD ARTESIA	61773	Printed Name
10.02	OCD ARIES	29 / 5 /	Agent
	n – – – – – – – – – – – – – – – – – – –	7	Title
	100 00 00 00 00 00 00 00 00 00 00 00 00		04/11/01
43.18 AC			SURVEYOR CERTIFICATION
LOT 3			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
			supervison and that the same is true and
			correct to the best of my belief.
			MARCH 05, 2001
43.19 AC			Date Surveyed AWB
LOT 4			Signature & Seal of Professional Suiveyor
		4578.1'	DA
		o 1980'	Konall Film 03/12/01
			01-11-0236
		4573.5' _ 4559.0'	Certificate No. RONAID J. EDSON 3239
			Certificate No. RUMALL 1. ansoln 12841
43.20 AC			GARY EIDSON 12841

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. <u>31</u> TWP. <u>19</u>—S RGE. <u>21</u>—E SURVEY <u>N.M.P.M.</u> COUNTY <u>EDDY</u> DESCRIPTION <u>860'FSL & 1980'FEL</u> ELEVATION <u>4588'</u> OPERATOR <u>KUKUI OPERATING COMPANY</u>

LEASE SARGENT CANYON "31" FEDERAL

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117

LOCATION VERFICATION MAP



SCALE: 1'' = 2000'

- SEC. <u>31</u> TWP. <u>19-S</u> RGE. <u>21-E</u>
- SURVEY N.M.P.M.

COUNTY____EDDY

DESCRIPTION 860'FSL &1980'FEL

ELEVATION _____4588'

OPERATOR <u>KUKUI OPERATING COMPANY</u> LEASE <u>SARGENT CANYON "31" FEDERAL</u> U.S.G.S. TOPOGRAPHIC MAP STRYCHNINE DRAW, N.M. CONTOUR INTERVAL: 20' STRYCHNINE DRAW, N.M.

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUBSTITUTE FORM 3160-5 (APPROVED June, 1992, revised May, 2000) SUNDRY NOTICES AND REPORTS ON WELLS

1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NO. NMNM-105538
2. NAME OF OPERATOR KUKUI Operating Company	6. IF INDIAN, ALL., OR TRIBE NAME
^{3a. ADDRESS} 601 Vestavia Parkway, Suite 240 Vestavia, Alabama 35216	7. IF UNIT OR CA, AGREEMENT DESIGN.8. WELL NAME AND NO.
3b. Telephone Number (include area code) 205/823-2977	Sargent Canyon "31" Federal #1 9. API WELL NO.
 LOCATION OF WELL (Footage, Sec. T. R. M, or Survey Descri 860' FSL & 1980' FEL of Sec. 31-T1 	
	11. COUNTY OR PARISH, STATE; Eddy, New Mexico
12. FILL IN APPROPRIATE DESCRIPTION TO	INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA
TYPE OF SUBMISSION: Subsequent Report	TYPE OF ACTION: Additional Data

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 recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

Clarification of "Pressure Control Equipment" (Item 10 of APD)

- Set 40' of 13 3/8" conductor pipe. Install 13 5/8" starter head and rotating head. Drill 12 1/4" hole to 1,350'. Set 9 5/8" surface casing. Cement to surface.
- 2.) Nipple up 11", 5M SRRA stack. Test BOPE and 9 5/8" surface casing to 70% of rated internal yield of casing.

14. I HEREBY CERTIFY THAT THE FOREGOING IS TR Name (Printed or Typed)	RUE AND CORRECT.	
Larry Strider	· · · · · · · · · · · · · · · · · · ·	
SIGNED	District Operations Manager	DATE4/20/01
(THIS SPACE FOR FEDERAL OR STATE OFFICE USE) APPROVED BY /// /// ///////////////////////////	GATE FIELD MANAGER	DATE JUN 0 7 2001



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KUKUI OPREATING COMPANY ARGENT CANYON "31" FEDERAL # 1 UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

- 1. Location: 860' FSL & 1980' FEL SEC. 31 T19S-R21E EDDY CO. NM
- 2. Elevation above Sea Level: 4588' GR.

.....

- 3. Geologic name of surface formation: Quaternery Aeolian Deposits.
- 4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. Proposed drilling depth: 7750'

6. Estimated tops of geological markers:

San Andres	1350'	Wolfcamp	4450 '	Atoka	7110'
Glorietta	1850'	Cisco	5550'	Morrow	7300'
Tubb	2700'	Canyon	6310'	Barnett Shale	7410'
Abo	3350'	Strawn	6800'	Chester	7450'

7. Possible mineral bearing formations:

Wolfcamp	Gas	Atoka	Gas
Cisco	Gas	Morrow	Gas
Canyon	Gas		

8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Cullar	Grade	
17'2"	0-40	13 3/8"	48	8-R	ST&C	H-40	
124"	0-1350'	9 5/8"	36	8-R	ST&C	J - 55	
8 3/4"	0-7750'	5 ¹ 2''	17	8-R	LT&C	J-55	•,

KUKUI OPREATING COMPANY ARGENT CANYON "31" FEDERAL # UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

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9. Cementing and Setting Depth:

13 3/8"	Conductor	Set 40' of 13 3/8" concuctor casing 48# H-40 8-R ST&C. Cement to surface with Redi-mix.
9 5/8"	Surface	Set 1350' of 9 5/8" $36\#$ J-55 ST&C casing. Cement with 500 Sx. of Halco Light Cement + additives, tail with 500 Sx. of Class "C" cement + $\frac{1}{2}\#$ Flocele/Sx. + 2% CaCl, circulate cement to surface.
5½"	Production	Set 7750' of 5½" 17# J-55 LT&C cassing. CEment with 1100 Sx. of Halco Light Class "C" + additives tail in with 500 Sx of Class "H" Premium Plus cement + additives, estimate top of cement 1150'.

10. <u>Pressure Control Equipment:</u> Exhibit "E". A 1500 Series 5000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nippled up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

		e beeu.		
Depth	Mud Wt.	Visc:	Fluid Loss	Type Mud
40-1350'	8.4-8/7	29-34	NC	Fresh water spud mud add paper to control seepage and use high viscosity sweeps to clean hole.
1350-4200'	9.0-9.5	29-36	NC	Cut brine using paper to control seepage and high viscosity sweeps to clean hole.
4200-7750'	9.0-9.5	29-38	l0 cc or less	Cut brine using Polymer system to control water loss while running DST's, logs and casing.

11. Proposed Mud Circulating System:

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kicks. In order to run DST'S, open hole logs, and casing the viscosity and water loss may have to be adjusted to meet these needs. KUKUI OPREATING COMPANYARGENT CANYON "31" FEDERAL # 1UNIT "O"SECTION 31T19S-R21EEDDY CO. NM

12. <u>Testing</u>, Logging and Coring Program:

- 1. Open hole logs: Dual Laterolog, CNL, LDT, Gamma Ray Caliper from TD to 9 5/8" casing shoe. Run Gamma Ray, Neutron from 9 5/8" casing shoe to surface.
- 2. Mud logger will be placed on hole at approximately 1000'.
- 3. DST's may be run where shows dictate, Wolfcamp, Cisco, Canyon, Atoka and Morrow.
- 4. Sidewall cores may be taken as shows dictate.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP _______ PSI, estimated BHT ________ .

14. Anticipated Starting Date and Duration of Operation:

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The <u>Morrow</u> pay will be perforated and stimulated. The well will be swab tested and potentialed as a gas well.

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H_2S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
 - A. See exhibit "E"
- 6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If the location is near to a dwelling a closed DST will be performed.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H₂S scavengers if necessary.

.

SURFACE USE PLAN

KUKUI OPERATING COMPANY SARGENT CANYON "31" FEDERAL # 1 UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

- EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of Eddy Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From Hope New Mexico take Co. Road #12 South for 7 miles to Co Road #20 bear Right on 20 follow road for 9 ± miles pass Ranch House on the Right side of road go .5 mile± turn Right and follow road to location.

2. PLANNED ACCESS ROADS : Approximately 2500' of new oad will be constructed.

- A. the access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.
- B. Gradient on all roads will be less tha 5.00%.
- C. Turn outs will be constructed where necessary.
- D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
- E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
- F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Lopography.
- 3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

Α.	Water wells -	One approximately .75 miles Southeast.
в.	Disposal wells -	None known
с.	Drilling wells -	None known
D.	Producing wells -	As shown on Exhibit "A-1"
E.	Abandoned wells -	As shown on Exhibit "A-1"

SURFACE USE PLAN

KUKUI OPERATING COMPANY SARGENT CANYON "31" FEDERAL # 1 UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

4. If on completion this well is a producer Kukui Operating company will furnish maps or plats showing on site facilities or if needed offsite facilities. This will be accompanied with a Sundry notice.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit"C".

- 7. METHODS OF HANDLING WASTE MATERIAL:
 - A. Drill cuttings will be disposed of in the reserve pit.
 - B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
 - C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
 - D. Sewage from living quaters will drain into holes with a minium depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
 - E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

KUKUI OPERATING COMPANY SARGENT CANYON "31" FEDERAL # 1 UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

- 9. WELL SITE LAYOUT
 - A. Exhibit "D" shows the proposed well site layout.
 - B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
 - C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
 - D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
 - E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.
- 10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

KUKUI OPERATING COMPANYSARGENT CANYON "31" FEDERAL # 1UNIT "O"SECTION 31T19S-R21EEDDY CO. NM

- 11. OTHER INFORMATION:
 - A. Topography consists of high limestone ridges trending in a Southwesterly Northeasterly direction. Small intermittent drainage patterns are cut into the limestone bedrock. The vegetation consists of barrel cacti, acacia, gamma grass, broom snake weed, and javalina bush.
 - B. The surface and minerals are owned by The United States Government and is administered by The Bureau of Land Management. Surface of the land is is used by ranchers to graze livestock.
 - C. An archaeological survey will be conducted and a report filed with the Bureau of Land Management field office in Carlsbad New Mexico.
 - D. A ranch dwelling is located approximately .75 miles Southeast of location.
- 12. OPERATORS REPRESENTIVE:

Before construction:

TIERRA EXPLORATION INC. P.O. BOX 2188 HOBBS, NEW MEXICO 88241 OFFICE PHONE 505-391-8503 JOE T. JANICA During and after construction: KUKUI OPERATING COMPANY 601 VESTAVIA PARKWAY SUITE 240 VESTAVIA, ALABAMA 35216 OFFICE PHONE 205-823-2977 LARRY STRIDER

13. <u>CERTIFICATION:</u> - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposedherein will be performed by "Kukui Operating Company, it's contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

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DATE	: <u>04/11/01</u>			
TITLE	:Agent			

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- (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D RIG LAY OUT	
KUKUI OPERATING SARGENT CANYON "31" UNIT "O" T19S-R31E	



ARRANGEMENT SRRA

1500 Series 5000 PSI WP

EXHIBIT "E" SKETCH OF B.O.P. TO BE U	ISED ON



FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.



FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1" CHOKE MANIFOLD & CLOSING UNIT

KUKUI OPERATING COMPANY SARGENT CANYON "31" FEDERAL # 1 UNIT "O" SECTION 31 T19S-R21E EDDY CO. NM

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

KUKUI Operating Company 601 Vestavia Pkwy. St. 240 Vestavia, Alabama 35216

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No: NMNM - 105538

Legal Description of Land: E 1/2 of Section 31 - T19S - R21E Eddy County, New Mexico

Formation (s) (if applicable):

Bond Coverage: Statewide

BLM Bond File No: BO 5522

Authorized Signature:

Title: District Operations Mgr.

Date: 4/20/2001

THOM STATES 22:18 142 724 1002 RECEIVED

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