NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS Application Acronyms: [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]

[DD-Directional Drilling] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

TYPE OF APPLICATION - Check Those Which Apply for [A] [1] Location - Spacing Unit - Directional Drilling □ NSL □ NSP \square SD Check One Only for [B] and [C] Commingling - Storage - Measurement [B] **⊠** DHC \Box CTB \square PLC \square_{PC} OLS □ OLM Injection - Disposal - Pressure Increase - Enhanced Oil Recovery [C] ☐ IPI \square_{WFX} \square_{PMX} \square SWD ☐ EOR ☐ PPR NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply [2] ☐ Working, Royalty or Overriding Royalty Interest Owners [A] [B] Offset Operators, Leaseholders or Surface Owner Application is One Which Requires Published Legal Notice [C] ☐ Notification and/or Concurrent Approval by BLM or SLO [D] U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office For all of the above, Proof of Notification or Publication is Attached, and/or. [E] [F]☐ Waivers are Attached

INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding [3]

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

	Note: Statement must be completed by an individ	ual with supervisory capacity.	
	1/2 10/1 11		
Kay Maddox	_ Kus ///addox	Regulatory Agent	4/2/9
Print or Type Name	Signature	Title	Date

<u>BITRICT II</u>

DISTRICT III

811 Southl First St. Artesia NM 88210 2835

1000 Rio Brazos Rd. Aztec, NM 87410 1693

State of New Mexico Energy, Minerals and Natural Rasources Department

Form C-107-A New 3-12-96

OIL CONSERVATION DIVISION

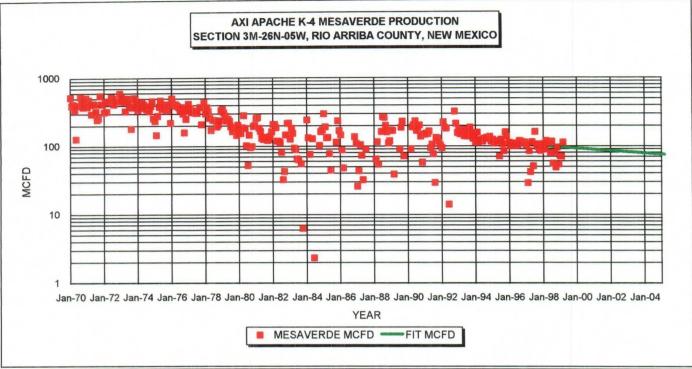
2040 S. Pacheco Santa Fe, New Mexico 87505-6429

APPROVAL	PROCESS
52 6 days 1 - 1 - 4 41 - 41 - 41 - 41 - 41 -	

APPLICATION FOR DOWNHOLE COMMINGLING

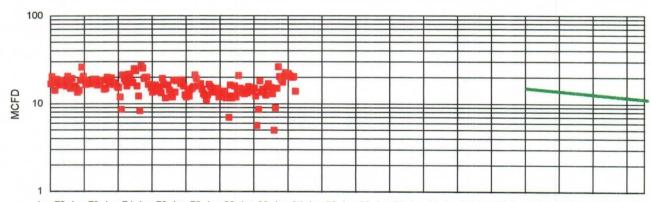
Administrat		пеа	nng
EXISTING	G WEL	LBC	RE
\boxtimes	YES		ΝО

Conoco Inc.		Desta Dr. Ste 100W, Midland	, Tx. 79705-4500
AXI Apache K	#4	Section 3, T-26-N, R-5-W, M	Rio Arriba, NM
ogrid No. 005073 Property Code	000100	tr Sec Twp Rge Spacing U	Jnit Lease Types: (check 1 or more) , State , (and/or) Fee
The following facts ate submitted in support of downhole commingilng:	Upper Zone	intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Pictured Cliffs, So 72439		Blanco Mesaverde 72319
TOP and Bottom of Pay Section (Perforations)	3772-3830'		5436-6008'
3. Type of production (Oil or Gas)	Gas		Gas
Method of Production {Flowing or Artificial Lilt}	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artilicial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a (Current) 330 b(Original) 1175	a. b.	a. 575 b. 1315
6. Oil Gravity (*API) or Gas BT Content	1215		1297
7. Producing or Shut-In?	Shut-in		Producing
Production Marginal? (yes or no) • If Shut-In give date and oil/gas/ water rates of Isst production Note For new zones with no production hIStory applicant shad be required to attach production estimates and supporting dara	Yes Date 6/84 Rates 14 MCFD, 0 BOPD, 0 BWPD	Date Rates:	Yes Date Rates
If Producing, date and oil/gas/ water rales of recent test (within 60 days)	Dale Rates	Dale Rates	Date 4/99 Rates 68 MCFD, 0 BOPD, 6 BWPD
8. Fixed Percentage Allocation Formula -% or each zone	oil: % Gas 13 %	oil: Gas %	oii: "Gas 87 %
10. Are all working, overriding, an If not, have all working, overr Have all offset operators been 11. Will cross-flow occur? X Y flowed production be recovered. 12. Are all produced fluids from an 13. Will the value of production be 14. If this well is on, or community United States Bureau of Land 15. NMOCD Reference Cases for 16. ATTACHMENTS * C-102 for each zon * Production curve for For zones with no pata to support all the Notification list of the Notification list of the support of the support of the Notification list of the support of the support of the Notification list of the No	porting data and/or explaining read royalty interests identical in a iding, and royalty interests been given written notice of the profes. No If yes, are fluids coped, and will the allocation formulal commingled zones compatible decreased by commingling? ized with, state or federal land id Management has been notified. Rule 303(D) Exceptions: The to be commingled showing it for each zone for at least one year operation method or formula. The production history, estimated posation method or formula.	method and providing rate project all commingled zones? en notified by certified mail? posed downhole commingling? empatible, will the formations notice to the second sec	A Yes No
I hereby certify that the information			
SIGNATURE THE	W/1-11/20	_TITLERegulatory Agent	
TYPE OR PRINT NAME Kay Mad	dox	TELEPHONE NO.	(915) 686-5798



1ST PROD: 07/65 MESAVERDE PROJECTED DATA MESAVERDE HISTORICAL DATA: 1/1/98 Qi: OIL CUM: 6.40 MBO 100 MCFD GAS CUM: DECLINE RATE: 2553.0 MMCF 4.0% (EXPONENTIAL) OIL YIELD: 0.0025 BBL/MCF

AXI APACHE K-4 PICTURED CLIFFS PRODUCTION SECTION 3M-26N-05W, RIO ARRIBA COUNTY, NEW MEXICO



Jan-70 Jan-72 Jan-74 Jan-76 Jan-78 Jan-80 Jan-82 Jan-84 Jan-86 Jan-88 Jan-90 Jan-92 Jan-94 Jan-96 Jan-98 Jan-00 Jan-02 Jan-04 YEAR

■ PICTURED CLIFFS MCFD —FIT MCFD

PICT. CLIFFS HISTORICAL DATA: 1ST PROD: 08/65 PICTURED CLIFFS PROJECTED DATA OIL CUM: 0.2 MBO 1/1/98 Qi: 15 MCFD GAS CUM: 138.8 MMCF **DECLINE RATE:** 4.0% (EXPONENTIAL) OIL YIELD: 0.001 BBL/MCF FIXED COMMINGLE ALLOCATION FACTORS:

FIXED COMMINGLE ALLOCATION FACTORS:

GAS

MESAVERDE

87%

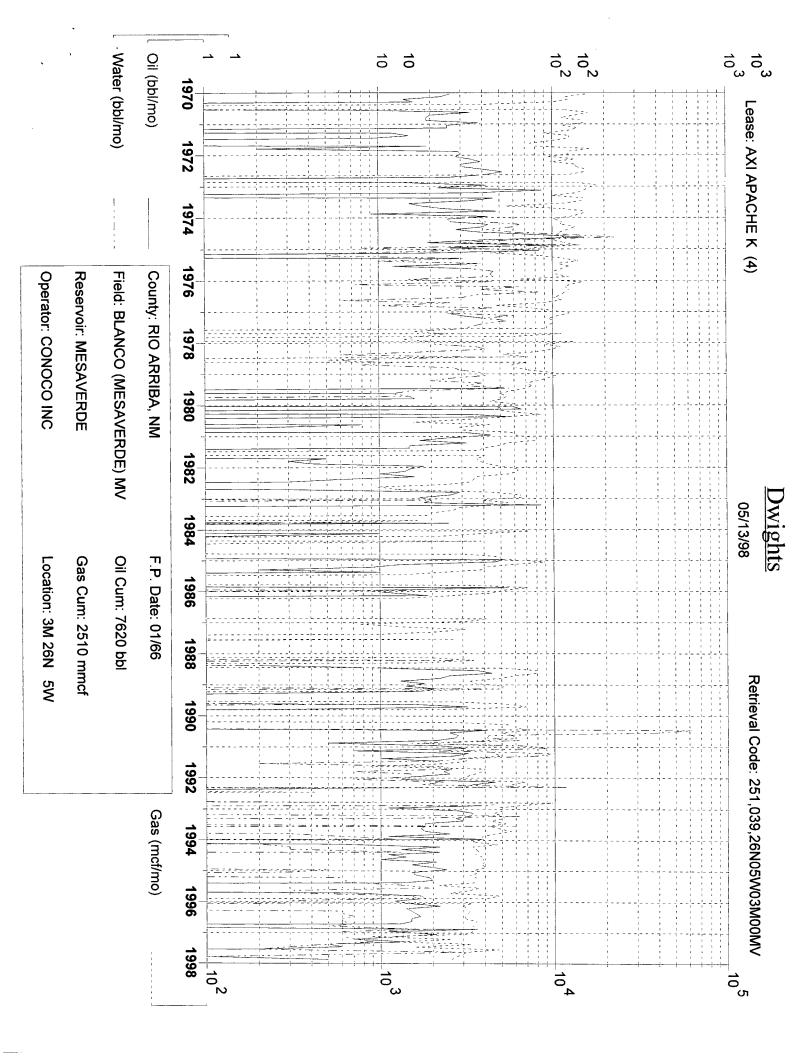
92%

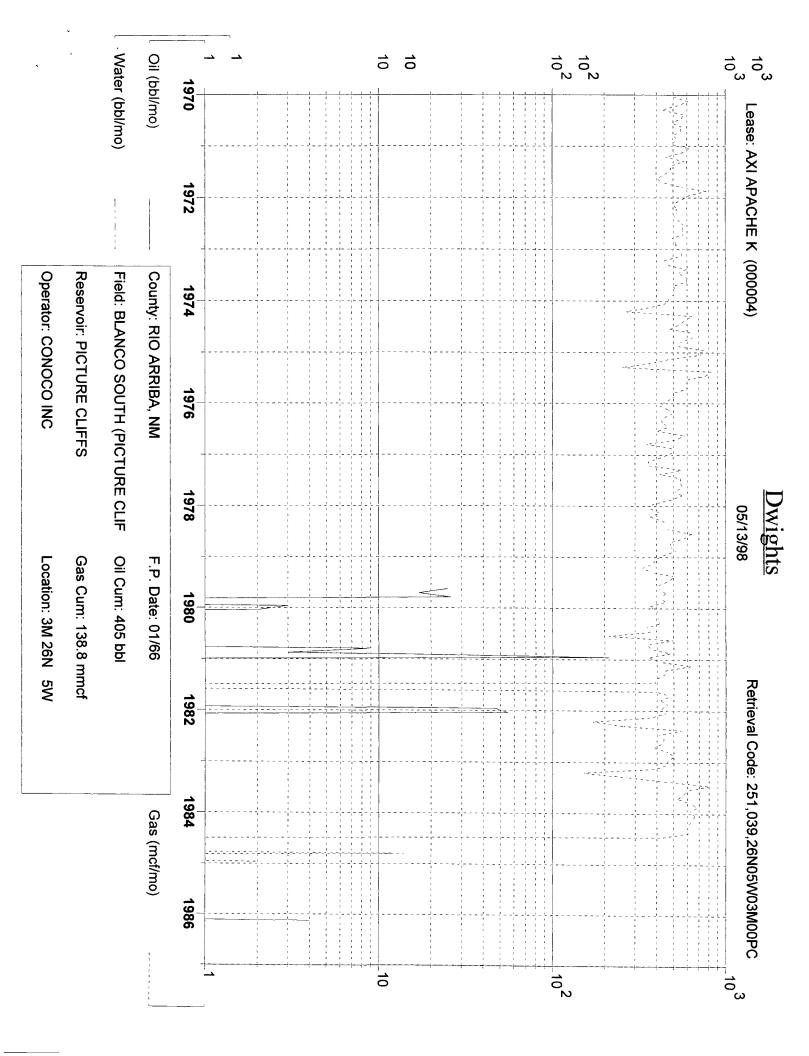
PICT. CLIFFS

13%

8%

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA





NE IEXICO OIL CONSERVATION COMMISSIO WELL LOCATION AND ACREAGE DEDICATION PLAT

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	inental 011 C			AXI Apac	che "I	T		Well No.
Unit Letter	Section	Township	243	Range		County	54 - 1 1	٠.
Actual Footage Loc	3	ļ	26N		SW		Rio Arri	D&
990		South		1027			West	
Ground Level Elev:	feet from the Producing For		line and	ool	tee	t from the	MEDL	line Dedicated Acreage:
7119*	Pictured	Cliffs	8	o. Blanco			ffs	160 - PC (Red)
	e acreage dedica	_		lance Mose			marka an th	320 - MY (Blue)
1. Outline th	e acreage dedica	ited to the	subject well	by colored p	encii o	i nacnute	marks on u	te plat below.
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	n one lease of dommunitization,		-		well,	have the i	nterests of	all owners been consoli-
Yes	☐ No If a	nswer is "y	es," type of o	consolidation				
	is "no;" list the f necessary.)	owners and	tract descrip	otions which l	nave ac	tually bee	en consolid	ated. (Use reverse side of
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	1			i Ì			best of m	y knowledge and belief.
	+							PID NAL SIGNED BY: I. D. WALEY
				1			Position Dis	trict Manager
 	Sec	tion	3) 			Company Contin	ental Oil Company
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	- 			+ _]	knowledge	e and belief.
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June 2, 1999

AXI Apache K #4 Section 3, T-26-N, R-5-W, M API # 30-039-82254 Rio Arriba, NM

RE: Application to Downhole Commingle (C107A)

Notification of Offset Operators:

Burlington Resources PO Box 4289 Farmington, NM 87499

Amoco PO Box 800 Denver, CO 80201

A copy of the C-107A Application has been sent to the above listed parties.

AXI Apache K 4

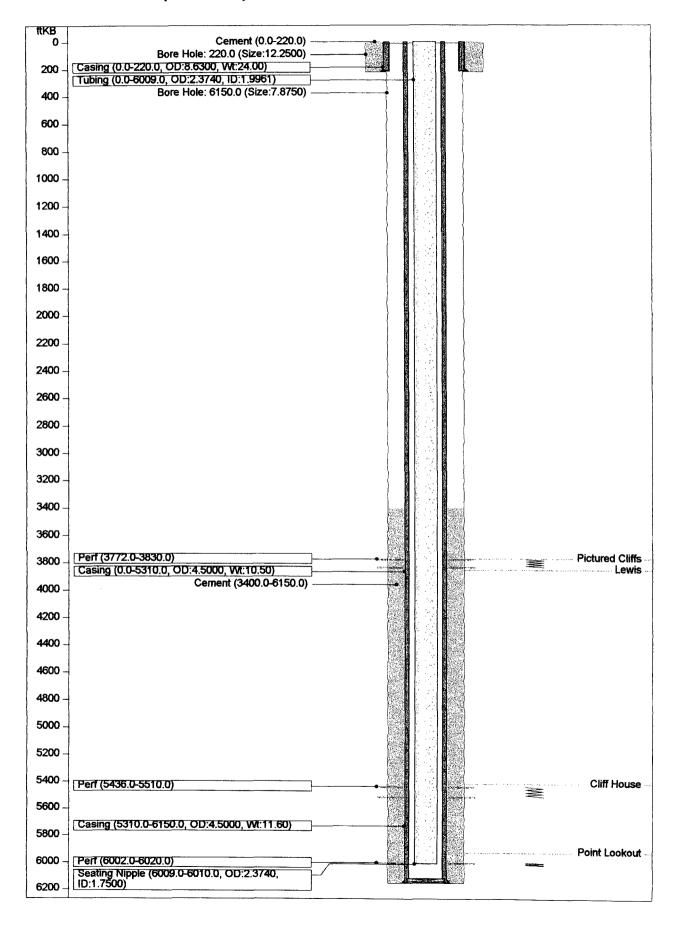
Economic/Rate Justification for Down Hole Commingling

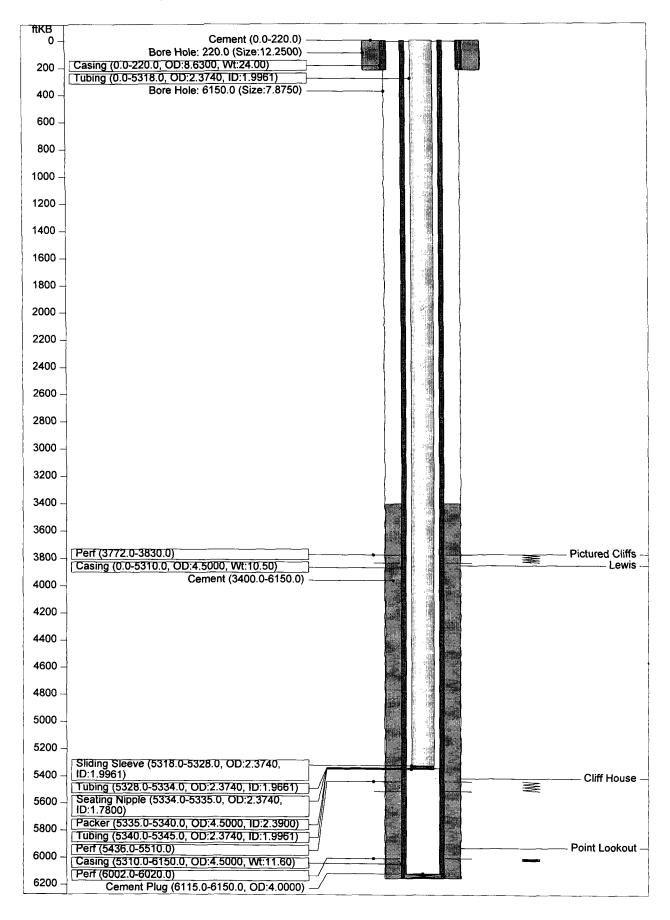
Approval is requested to down hole commingle the existing zones in the subject well. The AXI Apache K 4 has 4 1/2" production casing. It is completed using a 2.375" tubing string for the Mesa Verde. The Picture Cliffs zone is open above a packer but is not currently capable of producing up the tubing casing annulus. Both zones have produced some liquids and produce well below the minimum critical rate required to unload liquids from the well bore. The current rates allow liquids to accumulate in the wellbore, thereby preventing maximum production from this well. A sliding sleeve assembly in the tubing string across from the Picture Cliffs zone prevents the use of plunger lift on the Mesa Verde zone. To optimize production it is recommended to pull the existing equipment from the well, and produce it using plunger lift in a single 2 3/8" tubing string. The expected production increase is estimated at 50 MCFD.

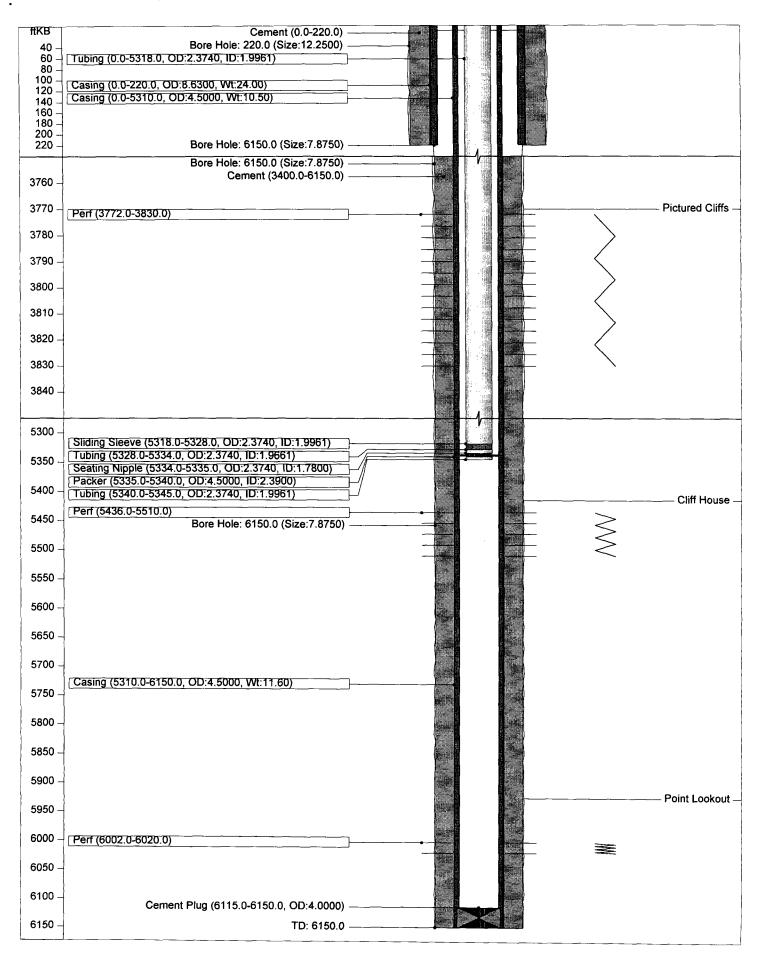
The use of a single tubing string with out a sliding sleeve and packer will allow plunger lift to remove liquid from the wellbore and maximize production from all commingled zones.

Production from these zones is established by ample production history. A production plot is attached showing best fit projections of future production for each zone. Form 107A shows the fixed percentage formula for allocation of production from each zone.

AXI APACHE K 4 (Post DHC)







API Code				039822540		Field	Code		676398740
TD			6150.0 ftKB			Basin Code		SAN JUAN BASIN	
BTD			6115.0 ftKB						580
State			New Mexico		Perm	IL		01-Jul-65	
County				IO ARRIBA		Spud Finish	Del		20-Jul-65 30-Jul-65
District			Sa	n Juan O.	J	Comp			30-Jul-65 17-Aug-65
Permit No.	٠			6150 ftKB		Aban			17-Aug-00
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reservoir		RIA	NCO MI	//BLANCO	SOUTHP	C			
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(ftKB)		, 515		
5415.	0 Cliff House			
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Date Typ D-Jul-65 IND	e Int 200.0 - 6146.0	Company Lane Wells	Comments	
-Aug-65 GR-C	3300.0 - 6146.0	Lane Wells		
neral Notes				77.44
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17-Aug-65 Initi	al Potential: F 818 MCFGP	'D on 3/4 in ck, CP 67; F 326	5 MCFGPD on 3/4 in ck, TP 260	

USGS(2) NMOCC(2) DRB JRH Humble HDH

USGS(2) NMOCC(2) DRB JRH Humble HDH

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