Loound	on of spill:	: COG Harv	ard Fec	deral Tar	nk Battery		Date of Spill:	30-M	ar-201	9		
							n equipment , i.e wellhead pump, or storage tank place	· · · · · ·	X			
•							own enter the volumes here:	OIL:		WATER: 0.0 BBI		
If "known" spill volumes are given, input data for the following "Area Cal Total Area Calculations							Iculations" is optional. The above will override the calculated volumes. Standing Liquid Calculations					
		wet soil										
Total Surface Area Rectangle Area #1	width 20 ft	leng 5	gth 0 ft	Х	depth 1.00 in	oil (%) 100%	Standing Liquid Area Rectangle Area #1	width 0 ft	Х	length 0 ft	liquid dep	oth oil (
Rectangle Area #2	20 ft	X 3	5 ft	Х	1 in	100%	Rectangle Area #2	0 ft	Х	0 ft	X 0	in
Rectangle Area #3 Rectangle Area #4	30 ft 30 ft		0 ft 0 ft	X X	0.75 in 0.10 in	100% 100%	Rectangle Area #3 Rectangle Area #4	0 ft 0 ft		0 ft 0 ft		in in
Rectangle Area #5			0 ft	x	0.10 in	0%	Rectangle Area #5	0 ft				in
Rectangle Area #6	0 ft		0 ft	Х	0 in	0%	Rectangle Area #6	0 ft				in
Rectangle Area #7 Rectangle Area #8	0 ft 0 ft		0 ft 0 ft	X X	0 in 0 in	0% 0%	Rectangle Area #7 Rectangle Area #8	0 ft 0 ft	X X	0 ft 0 ft		in in
						okay						
			produc	tion sys	stem leak - D		DUCTION DATA REQUIRE	D				
Average Daily Production:	Oil 0	BBL Water	0	BBL	0 Ga	is (MCFD)	Total Hydrocarbon C	ontent in case	0%	(perceptage)		
Did leak occur before the separa	rator?	YES		N/A	(place an "X	(")	H2S Content in P	•	0 %	(percentage) PPM		
nu leak occur belore the sepan	2101 : .	TEG			(place all X	()	H2S Content in		0	PPM		
Amount of Free Liquid Recovered:	0 BBI	L		okay			Percentage of Oil	in Free Liquid Recovered:	0%	(percentage)		
Liquid holding factor *:	0.14 gal											
	gu.	per gal			g when the spill v						ills the pore space o	
	gu.	per gal	* Sand	i = 0.08 g	allon (gal.) liquid	d per gal. volu	ume of soil.	Occurs when the s	pill soa	ked soil is contained	l by barriers, natural	
	gui	per gal	* Sand * Grav	i = 0.08 g elly (calich	allon (gal.) liquid ne) loam = 0.14 g	d per gal. volu gal. liquid per		Occurs when the s * Clay loam = 0.20	pill soa gal. liq		l by barriers, natural of soil.	
_	gu	per gal	* Sand * Grav * Sand	i = 0.08 g elly (calich ly clay loa	allon (gal.) liquid ne) loam = 0.14 g	d per gal. volu gal. liquid per Il liquid per ga	ume of soil. r gal. volume of soil. al. volume of soil.	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche)	pill soal gal. liq loam =	ked soil is contained uid per gal. volume	l by barriers, natural of soil. gal. volume of soil.	
Total Solid/Liquid Volume:	4,100 sq.		* Sand * Grav * Sand	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 g m soil = 0.14 gal	d per gal. volu gal. liquid per Il liquid per ga r gal. volume	ume of soil. r gal. volume of soil. al. volume of soil.	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5	pill soal gal. liq loam =	ked soil is contained uid per gal. volume = 0.25 gal. liquid per	l by barriers, natural of soil. gal. volume of soil. of soil.	
Total Solid/Liquid Volume: Estimated Volumes S	4,100 sq.		* Sand * Grav * Sand * Clay cu. ft	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 g m soil = 0.14 gal 16 gal. liquid per 227 cu.	d per gal. volu gal. liquid per Il liquid per ga r gal. volume	ume of soil. r gal. volume of soil. al. volume of soil. of soil.	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche * Sandy loam = 0.5	pill soal gal. liq loam = gal. lic q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per guid per gal. volume CU.	I by barriers, natural of soil. gal. volume of soil. of soil. ft.	(or not).
	4,100 sq. Spilled	ft.	* Sand * Grav * Sand * Clay	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 g m soil = 0.14 gal 16 gal. liquid per	d per gal. volu gal. liquid per l liquid per ga r gal. volume ft.	ime of soil. r gal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume:	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5 S n Volumes Los	pill soal gal. liq loam = gal. lic q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per quid per gal. volume	I by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u>	(or not).
Estimated Volumes S Liquid i Free I	4,100 sq. Spilled in Soil: Liquid:	ft. 0. 0.	* Sand * Grave * Sand * Clay cu. ft <u>H2O</u> 0 BBL 0 BBL	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 g m soil = 0.14 gal 16 gal. liquid per 227 cu. <u>OIL</u> 5.7 BBI 0.0 BBI	d per gal. volu gal. liquid per gal. volume gal. volume ft.	ime of soil. r gal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche * Sandy loam = 0.5 s n Volumes Los	pill soal gal. liq loam = gal. lic q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per juid per gal. volume cu. <u>H20</u>	I by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u>	(or not).
Estimated Volumes S Liquid i Free I	4,100 sq. Spilled in Soil:	ft. 0. 0.	* Sand * Grave * Sand * Clay cu. ft <u>H2O</u> 0 BBL	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 ga m soil = 0.14 gal 16 gal. liquid per 227 cu. <u>OIL</u> 5.7 BBI	d per gal. volu gal. liquid per gal. volume gal. volume ft.	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u>	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche * Sandy loam = 0.5 s n Volumes Los	pill soal gal. liq l loam = i gal. lic q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per juid per gal. volume cu. <u>H20</u>	I by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u>	(or not).
Estimated Volumes S Liquid i Free I	4,100 sq. Spilled in Soil: Liquid: Totals:	ft. 0. 0.	* Sand * Grave * Sand * Clay cu. ft <u>H2O</u> 0 BBL 0 BBL	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 g m soil = 0.14 gal 16 gal. liquid per 227 cu. <u>OIL</u> 5.7 BBI 0.0 BBI	d per gal. volu gal. liquid per ga I liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u>	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche; * Sandy loam = 0.5 n Volumes Loss uction Spilled: ce Damage	pill soal gal. liq loam = gal. lic q. ft. q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per juid per gal. volume cu. <u>H20</u>	I by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u>	(or not).
Estimated Volumes S Liquid i Free I	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid:	ft. 0. 0.	* Sand * Grav. * Clay cu. ft <u>H20</u> 0 BBL 0 BBL 0 BBL	i = 0.08 g elly (calich ly clay loar loam = 0.1	allon (gal.) liquid ne) loam = 0.14 gal 16 gal. liquid per 227 cu. <u>OIL</u> 5.7 BBI <u>0.0 BBI</u> 5.7 BBI	d per gal. volu gal. liquid per ga I liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surface Area:</u>	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche; * Sandy loam = 0.5 s n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a	pill soal gal. liq loam = gal. lic q. ft. q. ft.	ked soil is contained uid per gal. volume = 0.25 gal. liquid per juid per gal. volume cu. <u>H20</u>	I by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u>	(or not).
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered:	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes BBI	ft. 0. 0. 0.	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. volu gal. liquid per ga I liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. a. volume of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Saturated Soil =	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche; * Sandy loam = 0.5 * Sandy loam = 0.5 * * Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lb	pill soal gal. liq l loam = i gal. lic q. ft. q. ft. cre	ked soil is contained uid per gal. volume - e 0.25 gal. liquid per quid per gal. volume cu. <u>H2O</u> 0.0 BBL	t by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u> 0.0	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u>	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes	ft. 0. 0. 0.	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calich dy clay loan loam = 0	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. volu gal. liquid per ga I liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u> Surface Area: Surface Area: <u>Estimated Weights.</u>	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche; * Sandy loam = 0.5 s n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes	pill soal gal. liq l loam = i gal. lic q. ft. q. ft. cre	ked soil is contained uid per gal. volume • 0.25 gal. liquid per quid per gal. volume cu. <u>H2O</u> 0.0 BBL	t by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u> 0.0	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered: Estimated water recovered: <u>Air Emission from flowli</u>	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes BBI BBI	ft. 0. 0. 0. L L	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. volu gal. liquid per ga I liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. a. volume of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Saturated Soil =	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5 s n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lt 6 E ng Requiremer	pill soaia gal. liq i loam = i gal. lic gal. lic q. ft. t t t s BL	ked soil is contained uid per gal. volume - e 0.25 gal. liquid per quid per gal. volume cu. <u>H2O</u> 0.0 BBL	t by barriers, natural of soil. gal. volume of soil. of soil. ft. <u>OIL</u> 0.0	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered: Estimated water recovered: <u>Air Emission from flowli</u> Volume of oil spill:	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes BBI BBI Ine leaks: - BBI	ft. 0. 0. 0. L L L	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. vol. gal. liquid per ga l liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. a. volume of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: <u>Estimated Weights</u> Saturated Soil = Total Liquid =	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche; * Sandy loam = 0.5 n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lk 6 E ng Requirement New Mexico	pill soaia gal. liq i loam = i gal. lic gal. lic q. ft. t t t s BL	ked soil is contained uid per gal. volume e e 0.25 gal. liquid per quid per gal. volume cu. <u>H2O</u> 0.0 BBL 227 cu. f 237 galk	t by barriers, natural of soil. gal. volume of soil. of soil. ft. . <u>OIL</u> 0.0 ft. 8 on 1,975	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered: Estimated water recovered: Stimated water recovered: Mir Emission from flowili Volume of oil spill: Separator gas calculated:	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes BBI BBI BBI BBI BBI BBI BBI BBI BBI BB	ft. 0. 0. 0. L L L	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. vol. gal. liquid per ga l liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Productio Estimated Productio <u>Estimated Sourfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: <u>Estimated Weights</u> . Saturated Soil = Total Liquid = <u>Air Emission of Reporti</u> HC gas release reportable?	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5 s n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lk 6 E ng Requirement New Mexico NO	pill soaia gal. liq i loam = i gal. lic gal. lic q. ft. t t t s BL	ked soil is contained uid per gal. volume i e 0.25 gal. liquid per juid per gal. volume cu. <u>H2O</u> 0.0 BBL 227 cu. 1 237 galk	t by barriers, natural of soil. gal. volume of soil. of soil. ft. . <u>OIL</u> 0.0 ft. 8 on 1,975	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered: Estimated water recovered: <u>Air Emission from flowli</u> Volume of oil spill:	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: nes BBI BBI Ine leaks: - BBI	ft. 0. 0. 0. L L L	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. vol. gal. liquid per ga l liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. a. volume of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Prod <u>Estimated Surfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: <u>Estimated Weights</u> Saturated Soil = Total Liquid =	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5 s n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lk 6 E ng Requirement New Mexico NO	pill soaia gal. liq i loam = i gal. lic gal. lic q. ft. t t t s BL	ked soil is contained uid per gal. volume e e 0.25 gal. liquid per quid per gal. volume cu. <u>H2O</u> 0.0 BBL 227 cu. f 237 galk	t by barriers, natural of soil. gal. volume of soil. of soil. ft. . <u>OIL</u> 0.0 ft. 8 on 1,975	(or not). cu. ft. BBL cu. yds.
Estimated Volumes S Liquid i Free I Total Liquid Spill I <u>Recovered Volum</u> Estimated oil recovered: Estimated water recovered: <u>Air Emission from flowli</u> Volume of oil spill: Separator gas calculated: Separator gas released:	4,100 sq. Spilled in Soil: Liquid: Totals: Liquid: hes BBI BBI ine leaks: - BBI - MC - MC	ft. 0. 0. 0. L L L	• Sand • Grav. • Sand • Clay cu. ft 0 BBL 0 BBL 0 BBL 0 BBL 0 BBL	d = 0.08 g elly (calict ty clay loan loam = 0. t.	allon (gal.) liquid ne) loam = 0.14 ga 16 gal. liquid per 227 cu. 01L 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI 5.7 BBI	d per gal. vol. gal. liquid per ga l liquid per ga r gal. volume ft. L L L	ime of soil. rgal. volume of soil. al. volume of soil. of soil. Total Free Liquid Volume: <u>Estimated Productio</u> Estimated Productio Estimated Productio <u>Estimated Sourfa</u> Surface Area: Surface Area: Surface Area: Surface Area: Surface Area: <u>Estimated Weights</u> . Saturated Soil = Total Liquid = <u>Air Emission of Reporti</u> HC gas release reportable?	Occurs when the s * Clay loam = 0.20 * Gravelly (caliche) * Sandy loam = 0.5 n Volumes Loss uction Spilled: ce Damage 4,100 s .0941 a and Volumes 25,387 lk 6 E ng Requiremer New Mexico NO	pill soaia gal. liq i loam = i gal. lic gal. lic q. ft. t t t s BL	ked soil is contained uid per gal. volume i e 0.25 gal. liquid per juid per gal. volume cu. <u>H2O</u> 0.0 BBL 227 cu. 1 237 galk	t by barriers, natural of soil. gal. volume of soil. of soil. ft. . <u>OIL</u> 0.0 ft. 8 on 1,975	(or not). cu. ft. BBL cu. yds.